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Episode Transitions and Their Encodings In Narrative Discourse

By

Shaojun Ji ©

A thesis submitted to the Faculty of Graduate Studies and Research in partial fulfillment of the requirements for the degree of Doctor of Philosophy

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To My Family and My Parents

Abstract

Episode Transitions and Their Encodings In Narrative Discourse

Following an experimental and empirical approach, the present study seeks to determine what the important elements are that form the basis of our conception of episode transitions in narrative discourse and how such transitions are linguistically expressed. In obtaining the first-hand data for the study, three linguistic experiments are carried out with the participation of 20 native speakers of English and 20 native speakers of Chinese. While Experiment 1 elicits data concerning episode transitions in written narratives through a task of narrative segmentation, Experiments 2 and 3 obtain data concerning episode transitions in oral narratives through tasks of language production and picture identification. Based on the analyses of episode transitions favored by the majority of participants of both language groups in the tasks of narrative segmentation and picture identification, the present study offers strong evidence supporting its hypothesis: In narrative discourse episode transitions are primarily defined by major changes of such discourse

elements as time, place, or participant. When the contents of a narrative lack such changes as anchorable points of transition, the episode boundary will become less clear. In identifying episode transitions in picture books, both English and Chinese speakers have not only made highly compatible choices of pictures in general, they have also chosen the same pictures as the most representative. The fact that both language groups share the majority cases indicates that the conception of episode transitions is shared between the speakers of the two languages. Conforming with what has been suggested by some previous studies in the area, the episode-initial sentences identified in both written and oral data in this study are found to contain a variety of sentence-initial structures such as adverbs, adverb phrases, prepositional phrases, noun phrases, subordinate clauses, etc. The syntactic behaviors of these structures are attributed to serving the function of signaling episode transitions that are characterized by major changes in time, space, or participant. Realizing its shortcomings the present study has also suggested a few issues for further research.

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Abbreviations

Abbreviation	Term	Where Introduced
ASSOC	associative (*-de*)	p. 48
BA	bǎ	p. 64
CL	classifier	p. 48
DUR	durative aspect (*-zhe, zài*)	p. 56
EXP	experiential aspect (*-guo*)	p. 51
NOM	nominalizer (*de*)	p. 48
PFV	perfective aspect (*-le*)	p. 48
3sg	third person singular pronoun	p. 61

Chapter 1

Introduction

Toward an Experimental Study of Narrative Discourse

1.0. Introduction

Narrative is a very frequently used type of discourse in our life. In narratives people typically describe a series of events from an actual or fictional world in the past (Labov, 1972; Labov & Waletzky, 1967; Polanyi, 1989). Oral narratives usually occur in conversations as accounts of personal experience, anecdotes, jokes, and so forth, whereas written narratives are often found in stories, novels, fairy tales, biographies, diaries, letters, and the like.

1.1. Narrative Discourse and Some of Its Features

Because narrative is so important, it has been extensively studied and its various aspects have been revealed. According to Labov (1972, p. 360), a narrative text should consist of at least "a sequence of two clauses which are temporally ordered". Temporally ordered clauses are "narrative clauses" and they form the temporal axis or the narrative "skeleton" of a narrative text. The following short texts (Labov 1972, examples 4-7) provide good examples of what he regarded as narrative clauses versus non-narrative clauses:

1.1a) Well this person had a little too much to drink
and he attacked me
and the friend came in

and she stopped it.

1.1b) A friend of mine came in just
in time to stop
this person who had a little too much to drink
from attacking me.

1.2a) This boy punched me
I punched him
And the teacher came in
And stopped the fight.

1.2b) The teacher stopped the fight.
She had just come in.
I had punched this boy.
He had punched me.

The (a) versions are two pieces of oral narrative discourse recorded in Labov's study. In such texts the order of the clauses matches the order of the reported events. However, the same events can also be reported in different ways, as in the (b) versions. In these cases, the order of presentation no longer matches the order of the reported events. In (1.1a), the original temporal order is changed through syntactic embedding. In (1.1b), the mismatch between the presentation and the occurrence of order is indicated by the use of the past perfect form.

Longacre (1983, p. 3) also talked about what he characterized as the "contingent temporal succession" of the described events in a narrative. He particularly stressed that these events are not only temporally ordered but also mutually dependent. Such dependency may be created by

causality or it may result from a more general sense of coherence, as can be shown by the following examples:

1.3a) A car stopped in front of the house. Mary sliced some radishes.

1.3b) A car stopped in front of the house. Mary looked up from her work and walked over to the window.

Although the events in (1.3a) can plausibly be interpreted as happening consecutively they do not form a related sequence of events. In contrast, (1.3b) reads like a narrative of such a related sequence of events. But this is not because we simply infer temporal order. It is because we infer that Mary heard the car stop and as a result of this put down her work and walked over to the window in order to find out who had arrived. It is this consequential relation between the first and the following two events that make the narrative text make sense.

Another observation that has been made about narrative texts is that they not only contain narrative clauses but also non-narrative clauses. The former constitute the so-called *foreground* material of a narrative text, whereas the latter form the *background* material of the text (Depraetere, 1996; Dry, 1981; Ehrlich, 1987; Hopper, 1979; Reinhart, 1984). The following examples, in which the foreground clauses are italicized, illustrate how the distinction should be understood:

1.4a) *"I'll take ham and eggs," the man called Al said.* He wore a derby hat and a black overcoat buttoned across the chest. His face was small and white and he had tight lips. He wore a silk muffler and gloves.

"Give me bacon and eggs," said the other man. He was about the same size as Al. Their faces were different, but they

were dressed like twins. Both wore overcoats too tight for them. They sat leaning forward, their elbows on the counter.

"Got anything to drink?" Al asked.

1.4b) *Nick opened the door and went into the room.* Ole Anderson was lying on the bed with all his clothes on. He had been a heavyweight prizefighter and he was too long for the bed. He lay with his head on two pillows. He did not look at Nick.

"What was it?" he asked (Reinhart 1984, p. 783).

From the above two excerpts we can clearly see that narrative texts are organized along a temporal axis, which is formed by the italicized narrative clauses. These narrative clauses are regarded as the foreground material of the text because it is these clauses that chart the progress of a narrative through time. In contrast, the other clauses, which provide all the necessary details about the participants or the situations in which the events took place, make up the background material. In (1.4a), the background mainly consists of descriptions of the participant's looks and clothes. In (1.4b), it provides the information about the participant's occupation.

Another important feature of narrative discourse is its "participant orientation" (Hinds, 1977) or "agent orientation" (Longacre, 1983), which refers to the fact that narratives are typically built around human beings (but sometimes also around other animate beings as in fables, stories for children, and so forth). This participant orientation in a way defines what narrative discourse is: it is essentially the type of discourse used for telling what we human beings do and what happens to us on a

daily basis. The empirical studies involving narrative production carried out by both Prideaux (1998) and Pu (1995) provided evidence that humans are more frequently encoded by referring expressions such as noun phrases and pronominals than are nonhumans by native speakers of English and Mandarin Chinese in tasks of narrative production. Because the narrative discourse is basically built around humans, the continuity or discontinuity of their roles also affects our conception of the hierarchical structure of such a discourse (Givón, 1983; Grimes, 1975).

1.2. The Hierarchical Structure of Narrative Discourse

Previous studies on narrative discourse have also revealed the various aspects of its hierarchical structure. According to Labov (1972), narratives that occur in conversation tend to divide into the following sections:

a) An optional *abstract*, which is a brief summary of the entire story
b) An *orientation*, which identifies the time, place, persons, and situation
c) The *complicating action*, which describes what happened in a natural temporal order
d) An optional *coda*, which formally signals the end of the narrative
e) Various forms of *evaluation*, which clarifies the point of the narrative, or how it should be understood

These five sections of spontaneous narratives may be regarded as the general strategies taken by narrators in organizing their stories. When starting a story the narrator may need to indicate to the hearer the entry into the narrative world by means of the abstract. Then the narrator may

use orientation to supply the initial frame of reference for the narrative world. A narrator cannot describe a complicating action without introducing the people involved, the time and place of the action, and some other background facts. After the stage is set, the narrator would describe what happened in a natural temporal order and, at the end, leave the narrative world and come back to the here-and-now situation via the coda. Narratives, therefore, emerge with an organization shaped by the narrators' attempts to coordinate with their audience.

The several sections of spontaneous narratives characterized by Labov are not only true of the oral narratives that occur in conversation but also representative of the structuring of narrative in general. For instance, the title of a story usually plays the role of a kind of abstract by indicating what the whole story is about. The information serving the purpose of orientation is also provided at the beginning of the story or other transition points inside the story. The main part of the story specifies the complicating action. When the story comes to the end, an evaluation may also be made from the point of view of the storyteller. Thus Labov's analysis of oral narrative is also quite relevant to the narrative type of discourse in general.

Many previous studies did not take narratives that occur in conversation as the subject of their study. They were more concerned with the hierarchical structure of narrative discourse in general. In these studies, the hierarchical structure of a narrative discourse was often analyzed in terms of the intermediate units of *paragraphs* (e.g., Grimes, 1975; Hinds, 1977, 1979; Longacre, 1979), *narrative sections* (Gee, 1986), or *episodes* (e.g., Bamberg & Marchman, 1991; Black & Bower, 1979; Chafe, 1979; van Dijk, 1982; Haberlandt, Berian, & Sandson,

1980; Mandler & Goodman, 1982; Prideaux, Hogan, & Stanford, 1992; Pu, Prideaux, & Stanford, 1992; Tomlin, 1986). Their understanding of narrative as hierarchically structured is generally in line with analyses made in studies that are more focused on the issues of how thematic continuity is maintained and how thematic discontinuities are signaled in narrative discourse (Brown & Yule, 1983; Givón 1983, 1984; Polanyi & Scha, 1983; van Dijk & Kintsch, 1983; Virtanen, 1992).

One important issue that has interested many researchers concerns the points of transition from one thematic unit to another. Grimes (1975, pp. 102-111), for instance, discussed the partitioning of narrative discourse into constituent units in terms of changes in time, space, participant, or theme. He mentioned that the constituent units of narrative discourse could be recognized at the levels of both paragraph and episode, which may consist of a series of paragraphs. Since Grimes did not restrict his partitioning in the above terms to either paragraph or episode level, I assume that his partitioning can be regarded as applicable to both levels. Similar insights suggesting a close association between the boundary of a paragraph or episode and one or more of the changes as suggested by Grimes have also been made by many other researchers (e.g., Chafe, 1979; Gee, 1989; Givón, 1990; Hwang, 1989; Prideaux, 1996; van Dijk & Kintsch, 1983).

The understanding of narrative discourse in terms of intermediate units is further supported by psycholinguistic on-line studies that found episode-initial sentences that introduce an episode-shift harder to process because their reading times are relatively longer than within-episode sentences (Herblandt, Berian, & Sandson, 1980; Mandler & Goodman, 1982). A close examination of the experimental stimuli that produced

increased time for episode-shift sentences indicates that these sentences typically start with a new participant or an adverbial of time or space. What we have observed in these episode-initial sentences is consistent with the observations made by many researchers mentioned above, i.e., changes in time, space, or participant may introduce a new thematic unit in the narrative discourse.

1.3. Purpose of the Present Study

Although previous studies have suggested from time to time a correlation between the start of a new episode and changes in time, space, or participant, more research is needed to show the empirical situation of this correlation. Using experimental methodology, the present study investigates whether ordinary language users exhibit this correlation in language comprehension and production. The basic rationale behind the investigation is that if we can acquire some empirical evidence about ordinary language users' identifications and encodings of episode transitions, we will have a better idea of the important elements that form the basis of our conception of episode transitions and how such transitions are linguistically expressed. We will also be in a good position to examine the relationship between the linguistic forms of episode-initial sentences and their discourse functions at points of episode transitions.

In the view of the present study, if there is indeed a correlation between episode transitions and changes in time, space, or participant, such changes have to be expressed by lexical expressions, whether in written or oral narratives. Otherwise this correlation can not be demonstrated. For this reason, in exploring the possibility of such a correlation, the present study focuses on the linguistic structures that

carry the information about changes in time, space, or participant. For the same reason, pauses or other prosodic features that are often found to co-occur with breaks between discourse units are not considered in the present study.

1.4. Overview of Thesis

The rest of the thesis develops as follows.

In Chapter 2 I will first argue for an analysis of narrative in the units of episode rather than paragraph. I will then discuss studies using different methods that have touched upon the issues of how narrative develops from one episode to another and what linguistic structures are frequently found at the initial position of episode-initial sentences. Based on these studies the present study puts forward its hypothesis and raises two specific research questions. The three experiments conducted in the present study will also be introduced.

In Chapter 3 I will present and analyze the English data obtained in Experiment 1 which was designed to provide an answer to the first research question. The result indicates that in segmenting a narrative text into episodes the English readers share considerable agreement in identifying episode boundaries that are characterized by major changes in time, space, or participant. The linguistic structures expressing these changes will also be discussed.

In Chapter 4 I will present and analyze the Chinese data obtained in Experiment 1. Similar to the English readers, the majority of the Chinese readers also tend to agree with one another in identifying episode boundaries that are characterized by major changes in time, space, or

participant. A characterization of the linguistic expressions of these changes in the Chinese episode-initial sentences will be made as well.

In Chapter 5 I will discuss the methodology of Experiments 2 and 3 and their results. It will be shown that the factors that are associated with episode transitions, namely changes in time, space, or participant, can also be identified at the non-linguistic level and these factors are more or less equally identifiable to both English and Chinese speakers.

In Chapter 6 I will present and analyze both the English and Chinese oral data obtained from Experiments 2 and 3. It will be shown that both English and Chinese speakers do clearly encode episode transitions characterized by major changes in time, space, or participant in their oral stories.

In Chapter 7 I will briefly summarize the findings of the present study and the contribution it has made to the understanding of narrative discourse. Possible shortcomings of the present study and the further research it may lead to in the future will also be mentioned.

Finally the references, the written stories used as stimuli in Experiment 1 and outlines of the stories of the three picture books used as stimuli in Experiments 2 and 3 will be provided.

Chapter 2

Episode Transitions and Their Linguistic Encodings: An Experimental Approach

2.0. Introduction

In this chapter I will first argue for the choice of *episode* rather *paragraph* as the unit of analysis. After a brief survey of some previous studies on narrative discourse, an understanding of episode coherence will be offered from the perspective of the present study. This discussion will then be followed by a detailed introduction to the experiments that have been conducted in this study.

2.1. Towards an Episodic Analysis

As mentioned earlier, a narrative does not merely consist of sequences of sentences; rather, its various parts are organized hierarchically. Focusing on the form of written narrative, some investigators have tried to analyze the hierarchical structure of narrative in terms of the unit of the paragraph. Grimes (1975), for instance, described paragraph boundaries as one form of "partitioning" in discourse. His views of paragraph divisions were shared by Hinds (1977), who in his analysis emphasized the significance of "participant orientation" in narrative. Longacre (1979) also regarded the paragraph as a structural unit. His analysis showed that a paragraph is often built around a unique topic such as a participant or a theme. Formally there is a sentence that introduces the paragraph (i.e., the "setting" or the "introduction") and a sentence that ends it (i.e., the "terminus"). A paragraph thus has a hierarchical organization: the topic is

assumed to be at the top of the hierarchy whereas the other statements are considered to be occupying a subordinate position[1].

The analysis of narrative into intermediate units of paragraph certainly applies to texts that contain thematically well-structured paragraphs. However, it may not apply to texts in which paragraphs are not structured on thematic grounds. Several corpus studies have suggested that paragraphs considered as visual units do not always correspond to paragraphs considered as structural units (Braddock, 1974; Halliday & Hasan, 1976; Longacre, 1979). Such a dissociation results from the fact that the "paragraph indentations of a given writer are often partially dictated by eye appeal; that is, it may be deemed inelegant or heavy to go along too far on a page or a series of pages without an indentation or section break" (Longacre 1979, p. 116). Results obtained by Bond and Hayes (1984) partly supported such an interpretation. More specifically, their results indicated that people avoid one-sentence paragraphs. The "good" paragraph length depends on at least three spatial factors: the number of sentences in a paragraph, sentence length, and text length.

The undesirability of using the paragraph as a structural unit for analysis can also be seen from the fact that the criteria used by authors to indent their texts do not completely overlap with segmentation criteria used by readers in segmentation tasks. Bond and Hayes (1984) provided the data of a study in which subjects were asked to reinstate paragraph markers in a 17-sentence unparagraphed text on the basis of their own definition of the paragraph. It shows that subjects' segmentation differed in many points from the initial author segmentation. Similar results were reported by Stark (1988). In her study, only 9 author's breaks (out of 17) were identified as such by more than 50% of subjects.

The studies cited above suggest that the paragraph is a discourse unit that may or may not be structured on thematic grounds. In the latter case, paragraphing may be the result of stylistic concern or personal preference, following no common criterion. Because of this, the use of the paragraph as the unit of analysis is obviously undesirable. A thematically defined intermediate unit seems to be what we need. In this study, the *episode* will be used as such a unit.

Empirical support for the validity of episode has been provided by psycholinguistic studies which indicate that people recalling stories treat the information of an episode as an integral unit (cf. Black & Bower, 1979; Glenn, 1978; Mandler, 1978; Thorndyke, 1977). This finding is further supported by studies that have found the so-called episode-shift effect, i.e., readers pause longer in processing episode-initial sentences that introduce an episode shift than episode-internal sentences (Haberlandt, Berian, & Sandson, 1980; Mandler & Goodman, 1982). These studies suggest that although an episode may not have its boundary marked as the indented paragraph, the boundary of an episode is recognizable on thematic grounds.

2.2. Episode Transitions and Their Linguistic Encodings

Equally important contributions to our understanding of the structure of narrative have been made by studies from different perspectives. Based on his study of *The Pear Story* data, Chafe (1979, 1980) not only discussed the relationship between major thematic breaks and processing difficulty by using hesitations as evidence, but he also mentioned that such thematic breaks tend to be associated with a change in time, space, character configuration, or event structure. Because the focus of his study

was to show the relationship between the difficulty of oral production and points of thematic shift, he did not discuss in a comprehensive way the forms of linguistic expressions that are used at these points of shift.

Virtanen (1992) investigated the discourse function of clause-initial adverbials of time and space. Based on her analyses of narratives in the form of fairy-tales and travel-guide articles, she found that these clause-initial adverbials of time and space often function as signals of shifts of textual units of various sizes such as *sections*, *episodes*, or *moves*.

Focusing their attention on the discourse function of preposed subordinate clauses of time in their experimental research, Prideaux and Hogan (1993) found that in both oral and written narratives the preposed subordinate clause of time (characterized as a marked structure) occurred statistically far more frequently at the beginning of an episode than the nonpreposed one (an unmarked structure). The nonpreposed subordinate clause of time tended to occur far more frequently within an episode. Their analysis indicates that because the preposed subordinate clause is a good device for thematic reorientation, it often serves to code the beginning of a new discourse unit. Givón (1993, p. 315) made a similar observation. In addition he pointed out that preposed participial phrases and preposed prepositional phrases may serve the same discourse function.

Considered as a whole, the research work surveyed above has provided a coherent description of how narrative is structured, particularly of where episode transitions occur. To the present study, the importance of these findings lies not only in revealing how a narrative develops in the units of episode but also in helping us to understand our own conception of episode better.

2.3. Episode Coherence in Perspective

Although the notion of episode has been applied in many previous studies, its definition has not been uniformly accepted. Schank and Abelson (1977, p. 226) view episode as composed of sequences of actions. Mandler (1984) defines episodes more explicitly as consisting of a Beginning Constituent, a Complex Reaction, and a Goal Path, which in turn causes an Outcome. As such, an episode is a constituent of an underlying narrative structure that remains invariant. Van Dijk and Kintsch (1983) define an episode as a sequence of sentences dominated by a macroproposition, a proposition that is derived from a sequence of sentential propositions of a discourse. For Tomlin (1987, p. 458), an episode is a kind of conceptual paragraph which is "the next highest structural unit of discourse organization after the sentence". Despite the lack of total agreement, all these definitions seem to share the view of episode as a thematically coherent unit. But what specifically are the elements that contribute to our sense of episode as a thematically coherent unit?

Mandler's (1984) definition emphasizes the importance of such ingredients as the beginning, reaction, goal, and outcome of the actions of an episode. Van Dijk and Kintsch (1983), on the other hand, see the connectedness between the sentential propositions as the crucial factor. However, when we turn our attention to the findings we have just surveyed that suggest the correlation between episode transitions and changes in time, space, or participant we are provided with a new perspective. What this new perspective basically tells us is that if changes in time, space, or participant generally correlate with episode transitions, it means that the discourse elements of time, space, or participant are also

important to our conception of episode as a coherent unit. In other words, our sense of episode as a thematically coherent unit is derived from our evaluation of the roles played by such elements as time, space, or participant in the formation of an episode. This evaluation is cognitively based in the sense that we all do many different things in different periods of time at different places every day and we all have an intuitive idea of what belongs to one or another "episode" of our daily life.

From this perspective, it becomes apparent that the elements of time, space, or participant are the major factors that contribute to our sense of episode as a thematically coherent unit. In this light, our conception of a thematically coherent episode may be characterized as human participant(s) doing certain things for certain purposes within a certain period of time at a certain place. When there are major changes involving time, space, or participant, the start of a new episode may be perceived. In other words, the present episode as a thematically coherent unit ceases to exist as a result of such changes.

2.4. Identifying Episode Transitions: An Experimental Approach

As the survey indicated above, previous studies have, from various perspectives, suggested a correlation between episode transitions and changes of such discourse elements as time, space, or participant. In order to determine the empirical status of this correlation, the present study investigates whether ordinary language users identify episode boundaries at points where there are major changes in time, space, or participant and whether they also encode episode boundaries that are characterized by similar changes. The hypothesis for this investigation is:

> In narrative discourse, episode transitions are primarily defined by major changes of such discourse elements as time, place, or participant. When the contents of a narrative lack such changes as anchorable points of transition, the episode boundary will become less clear.

To test this hypothesis three experiments were conducted. These experiments had been designed specifically to answer two research questions: a) In language comprehension, do readers/hearers actually segment a narrative into units of episode at points of major changes in time, space, or participant? b) In language production, do speakers/writers clearly encode episode transitions characterized by major changes in time, space, or participant? The following is an introduction to these experiments.

2.5. Experiment 1: A Segmentation Task on Written Narratives

Experiment 1 was a segmentation task intended to provide an answer to the first research question. In this experiment, 20 native speakers of English and 20 native speakers of Chinese were asked to segment into episodes a few narrative texts in their own languages. The narrative texts used for both language groups were personal accounts of past experience. The three English narrative texts were all from *Reader's Digest* (see Appendix A). The four Chinese narrative texts were from two major literary magazines published in China (see Appendix B). Each text was presented to the participants in the experiment in an unparagraphed form but with a title. The participants were asked to divide the texts into episodes. An episode was defined to them as a portion of a narrative that relates to an event or a series of connected events and forms a coherent

unit in itself. They identified the beginning of each episode in the narrative by placing a vertical stroke before the first word of the episode. Each participant carried out the task when and wherever convenient, with no specific time limit. The participants in the English group consisted of 16 undergraduate students and 4 graduate students at the University of Alberta, Edmonton, Canada. The participants in the Chinese group consisted of 12 graduate students at the University of Alberta and 8 Chinese residents in Edmonton who received post-secondary education in China. In both groups half of the participants were male and half female.

2.6. Experiments 2 and 3: Narrative Production and Picture Identification

Both Experiments 2 and 3 of this study were designed to answer the second research question: In language production, do speakers clearly encode episode transitions characterized by major changes in time, space, or participant?

The two experiments were carried out with the participation of 20 native speakers of English and 20 native speakers of Mandarin Chinese. The participants in the English group consisted of 15 undergraduate students and 5 graduate students at the University of Alberta, Edmonton, Canada. The participants in the Chinese group consisted of 14 Chinese graduate students at the University of Alberta and 6 Chinese residents in Edmonton who received their post-secondary education in China. In both groups half of the participants were male and half female. Six participants in the Chinese group also participated in Experiment 1.

Experiment 2 was a language production task in which both native speakers of English and Chinese told stories in their own languages,

based on three picture books. This experiment was conducted to elicit oral narratives for analysis. Experiment 3 was another task of segmentation in which participants of both language groups were asked to segment the picture books into episodes. This experiment served to provide the points of episode transitions in the three picture books against which the oral narratives resulting from Experiment 2 will be analyzed.

The three picture books used as the visual stimuli in the two experiments are *The Wedding of Brown Bear and White Bear* (Beck, 1990), *Queenie the Bantam* (Graham, 1997), and *The Happy Dog* (Tanaka, 1983). Although all characters in the first two books are animals, they are nevertheless personified in the sense that they behave exactly as human beings and live in a highly identifiable human environment. A brief verbal summary of the story of each picture book is provided in Appendix C[2].

The choice of the three picture books is also part of the design of the experiment. In *The Wedding of Brown Bear and White Bear* and *Queenie the Bantam*, the stories involve different participants and their activities take place in different environments and at different times. In *The Happy Dog*, however, a personified dog is the only participant throughout the two short stories and the activities in which he is involved take place in two time spans and at two locations without major discontinuities in them. With this difference in contents existing between the three picture books, my prediction was that there would be more agreement among the participants in identifying certain pictures as episode-initial pictures in the first two picture books because the units of episode were better defined by major changes in time, space, or participant. In contrast, there would be less agreement among the participants in identifying certain

pictures as episode-initial pictures in the third picture book because the units of episode were less clearly defined due to a lack of major changes in time, space, or participant.

The procedure of the two experiments is as follows: Each participant carried out the two experiments independently in a quiet room at the Department of Linguistics, University of Alberta. Experiment 2 was conducted first, in which each participant was asked to read a picture book at a time and tell the story based on its pictures in his/her daily language. The picture books were presented to the participants in a random order. All the words originally used to illustrate some of the pictures or the relationship between them in the picture books were covered so that they could not influence the participants' verbal expressions.

As participants started telling each story they also started a cassette recorder in front of them to record the story. Once the story came to the end they stopped recording and started reading another picture book until all three picture books were dealt with in the same way. They were told not to refer to the picture books when they were telling the stories. They could, however, have a look at a certain section of a picture book if they could not remember the content of that section and therefore could not go on with their story-telling.

After the stories were told and recorded in Experiment 2, the participants then went through each picture book again and marked the pictures that they thought initiate new episodes in the picture book. Conducting Experiment 3 after Experiment 2 ensures that the process of identifying the episode-initial pictures on the part of the participants did not influence the structural organization of their oral stories[3]. There was

no time constraint on the participants in doing the two experiments. The average amount of time each participant spent was about 40 minutes. After both Experiments 2 and 3 were over, the recorded oral stories were transcribed for analysis.

In the next three chapters I will present and analyze the data obtained in these three experiments. In my presentation and analysis, the English data will be dealt with before its Chinese counterpart.

Notes

[1]It is necessary to point out that both Grimes and Longacre did not analyze narrative discourse only in terms of paragraphs. Grimes (1975, p. 109) mentioned that the constituent units of narrative discourse could be recognized at the levels of both paragraph and episode, which may consist of a series of paragraphs. Longacre (1983, pp. 271-272) made it clear that apart from paragraph he also recognized *discourse* as another useful constituent unit since "any string of paragraphs that belong together can be shown to have the structure of a discourse of a recognizable type". In his view, "the constituents of a discourse are discourse level slots which are filled either by a paragraph or an embedded discourse (with the latter ultimately composed of paragraphs as well)". According to his analysis, these discourse level slots could be episodes or chapters.

[2]Due to the copyright restriction, I cannot reprint all the pictures I used in my experiment.

[3]I would like to thank Dr. John Hogan for suggesting the order of the second and third experiments.

Chapter 3
Episode Transitions and Their Encodings In English Written Narratives

3.0. Introduction

In this chapter I will analyze the English episode-initial sentences identified in Experiment 1. A characterization will be made of the linguistic forms used for expressing various episode transitions in these sentences. I will also have a close look at whether the episode segmentations obtained in this study and the paragraph divisions made by the original authors exhibit the same patterns.

3.1. Sentences in the English High-Rate Group

After the segmented English narratives were collected in Experiment 1, all the identified episode-initial sentences were tabulated. As expected, these sentences were identified with various amounts of agreement among the participants in the experiment. In my investigation the sentences identified by 70% or more of the participants are chosen as the reliable data for analysis. The motivation for taking 70% as an appropriate range of majority is primarily a practical one. More specifically, 70% represents a clearer majority (as compared with 60%) that allows more tokens of sentences to be analyzed than would be allowed by 80% or 90%. The sentences identified by 70% or more of the participants are classified as the *high-rate group* and are considered the most representative episode-initial sentences identified in the segmented narratives. For the same reason, their identification is also considered to

be representative of English speakers' general view of episode transitions in the segmented narratives. The result of the analysis of these sentences will provide the answer to the first research question and the evidence for evaluating the validity of the hypothesis of this study. My analysis of the English data starts from sentences in this high-rate group.

The following excerpts contain a number of episode-initial sentences in the English high-rate group. The clauses in bold face are those selected by 70% or more of the participants as being at the beginning of a new episode.

3.1) At first the elephant keeper thought the windy razzing was deliberate. Ellie seemed to make a rude noise with her trunk whenever his back was turned. But it was a sound not usually associated with a well-mannered, three-ton Indian elephant. (followed by an account of the narrator's past interactions with the elephant as her doctor)

3.1a) ***Now***[1]***, hearing of her elephantine raspberries,*** I went immediately to Ellie's quarters. She looked at me with moist, gray eyes and flapped her ears. "Praaa," went the trunk. "Praaa, praaa, praaa." It happened every time she exhaled. (followed by the narrator's temporary diagnosis and the treatment to take)

3.1b) ***Back at my office,*** I phoned a surgical-instrument manufacturer. I asked to borrow a flexible endoscope. (followed by an explanation of the use of the instrument and the result of getting it)

3.1c) ***The next morning*** I injected Ellie with anesthetic. Five minutes later she sank to her knees, unconscious, her trunk still blaring when she exhaled. (followed by the narrator's examination of the

inside of Ellie's trunk and how he worked out a surgery plan to cure Ellie)

3.1d) ***At last*** I went back to the elephant house. Jack was sitting on a hay bale, stroking Ellie's trunk. "You're going to be right as a clock, luv," he murmured. "Right as a clock." His face was pale and tear streaked. "She can feed lightly today and tomorrow," I said. "I'll operate the day after that, Saturday."

3.2) As my guide emerged from his beat-up 1985 Honda, I was immediately struck by his bright-orange dread-locks, which dropped down to his shoulders like hundreds of crisscrossing mountain streams. (followed by an account of the initial interactions between the narrator and her guide)

3.2a) ***Before attempting to scale the heights in the real world***, I had gone to Chelsea Piers, a sports complex in Manhattan, to train on their climbing wall. For fifty bucks, I spent two hours learning to tie the classic climbing knots and use the equipment. (followed by an account of how the narrator became motivated in climbing a real mountain)

3.2b) ***Forty feet up a novice climb called Jackie***, I got stuck between a crack and an overhang. I was sure that if I moved either of my feet or my paws, gravity would have its way with me. (followed by a description of the narrator's difficult situation and her further actions of climbing)

3.2c) ***After I conquered Jackie***, Paul took me over to Three Pines, an easier multiple-pitch climb -- which means climbing cliffs that are

higher than your rope is long. (followed by an account of the climbing process)

3.3a) ***On Monday morning*** Ellie came to see me again. And again on Tuesday, Wednesday, Thursday and Friday. Each time I looked at the trunk and told her how well she was doing. On the morning of her tenth office visit, I snipped out the steel sutures. The wound had healed and would leave hardly any scar. Ellie must have decided that the removal of the stitches indicated that I was signing her off, for she didn't come the next day, nor ever again.

3.3b) ***A fellow vet*** once told me that his father had been prescribed champagne after an operation for nasal polyps. "It sounds like sensible medicine," he had remarked. I agreed. So a few days later, I bought a bottle to split in celebration with Ellie's keeper. The patient, however, did not go unrewarded. Ellie got a large, iced currant bun.

According to the hypothesis of this study, if episode transitions are characterized by major changes in time, space, or participant, the episode-initial sentences should contain information about these changes. So, an important part of the analysis of these sentences is to examine them one by one and find out if they are characterized by major changes in time, space, or participant. Within each episode-initial sentence the sentence-initial structures are the primary focus of attention. From the point of view of textual development, the initial position of the transitional sentence is crucial in that it is easy for the structure placed here to connect the sentence with what has preceded in the previous episode. It is also a natural starting point for the whole episode it leads.

Table 3.1 summarizes the correspondences between sentence-initial structures in the English high-rate group and the three types of discontinuities they express. The sentence-initial structures are listed under *Syntactic Categories* whereas the three types of discontinuities are listed under *Functional Categories*.

Table 3.1

Sentence-Initial Structures Expressing Different Types of Discontinuities (based on sentences of the English high-rate group: 13/14 = 93%)

Syntactic Categories	Functional Categories		
	Temporal Discontinuity	Spatial Discontinuity	Participant Discontinuity
Adverb (Phrase)[2]	2		
Prepositional Phrase	3	3	
Participial Phrase	1		
Noun Phrase	3		1
Subordinate Clause	1		
Total	10	3	1

There are altogether 14 sentences in the high-rate group. Table 3.1 records the correspondences between the sentence-initial structures and the three types of discontinuities in 13 sentences. Because one of them (3.1a) contains two initial structures, there are actually 14 tokens of the recognized structures in Table 3.1.

In tabulating the changes in time, space, or participant, three corresponding functional categories are set up. Specifically they are the

categories of temporal discontinuity, spatial discontinuity, and participant discontinuity. A case of temporal or spatial discontinuity corresponds to a sentence-initial structure indicating a clear change in time or place. For instance, *now* in (3.1a) and *at last* in (3.1d) are recorded as adverb and adverb phrase respectively, each expressing a temporal discontinuity, whereas *back at my office* in (3.1b) is treated as a case of prepositional phrase indicating a spatial discontinuity. *The next morning* in (3.1c) is regarded as a noun phrase informing a temporal discontinuity. If a sentence starts with a new participant in its subject position, it is treated as a case of participant discontinuity. *A fellow vet* in (3.3b) is an instance of such a case.

A case of temporal discontinuity may also be a sentence-initial participial phrase, a prepositional phrase, or a subordinate clause such as *hearing of her elephantine raspberries* in (3.1a), *before attempting to scale the heights in the real world* in (3.2a), and *after I conquered Jackie* in (3.2c). What these structures have in common is the indication of a particular time by referring to a specific event or activity in the previous episode. According to Givón (1993, p. 315), all these sentence-initial structures have their coherence links in two directions, anaphoric and cataphoric. Their anaphoric links can reach back to thematic information anywhere in the preceding episode. Their cataphoric links anchor themselves nicely to the main clause, which then launches the new episode.

From the point of view of textual development, the anaphoric links are particularly important in maintaining textual coherence. Their clause-like structures can express more complicated propositions (as compared with those sentence-initial structures carrying information simply about

temporal or spatial discontinuity) and therefore anchor the new episode to any specific happening in the previous episode (as exemplified by *hearing of her elephantine raspberries*) or the previous episode as a whole (as exemplified by *before attempting to scale the heights in the real world* and *after I conquered Jackie*). By establishing a link with a specific event or activity in the previous episode, these structures can serve very well the function of maintaining textual coherence; by their forward linking with the main clause they can suggest an episodic transition in the development of story.

There is one transitional sentence in the high-rate group that can not be incorporated into Table 3.1. This sentence is given below:

3.4) (After the narrator examined the trunk of the elephant) "How are you going to get it out?" asked Jack, distraught. Ellie and he were inseparable friends. "I'll think of something." ***I walked to my office, brewed some tea and sat staring out the window.*** (The narrator started thinking for a solution)

Unlike the other sentences in the group, this sentence does not involve a major change of participant. Nor does it involve a syntactic structure to express information indicating a temporal or spatial discontinuity. In addition, the subject is the narrator himself and therefore the pronominal *I* is semantically "light". Because of this, it seems reasonable to focus on the semantics of the sentence as a whole in explaining its discourse function. In this light, the sentence can be analyzed as one with compact information due to the fact that it contains three conjoined verb phrases which not only provide the information about a major change of place (as indicated by *I walk to my office*) but also list two specific things that the

narrator did (as expressed by *brewed some tea and sat staring out the window*) at the beginning of a process of trying to find a solution to the elephant's medical problem. For this reason, this sentence might be treated as a case of involving both spatial and thematic discontinuities.

As recorded in Table 3.1, the initial structures in all but one of the English high-rate group sentences are found to carry the information indicating major changes in time, space, or participant. A very prominent feature about the structures expressing these changes is that except in the case of participant discontinuity in Table 3.1, which is expressed by the indefinite noun phrase in the subject position (***A fellow vet once told me***...), all the other structures informing of changes in time or space are preposed and therefore "marked" structures. These preposed structures are regarded as marked because the canonical positions for these structures in English sentences are usually claimed to be at the end of the sentence (e.g., Clark & Clark, 1977; Givón, 1983; Quirk et al., 1985). The consistent use of these marked structures constitutes a very prominent feature about the way temporal and spatial discontinuities are expressed in the episode-initial sentences. This observation supports Prideaux and Hogan's (1993) finding about the frequent use of the marked subordinate clause of time at episode-initial position. It is also compatible with Virtanen's (1992) data of clause-initial adverbials used at the beginning of textual units.

Following Givón (1993) and Prideaux and Hogan (1993) I believe that the consistent use of marked structures at episode-initial position is functionally motivated. This functional motivation is to signal the start of a new episode by referring to the changes in time and space. As Prideaux (1996, p. 126) put it,

> One reason might be that it is at the onset of new thematic units where major background reorientation is required and preposed adverbial phrases or clauses seem to serve this scene-setting or reorienting function. Thus, a marked structure with an initial adverbial phrase or clause of time, location, or the like might appear to be a natural device for encoding the requisite semantic redirection.

In the present study, two further questions suggest themselves as well:

a) How can a number of such marked structures be used to achieve the same purpose?
b) What are the specific ways in which they signal episode transitions?

The answer to these questions may be partially related to the general strategy we use in comprehending a narrative.

Many researchers have proposed that the default assumption of readers is that the order in which the events are reported corresponds to the chronological order of these events (e.g., Comrie, 1985; Dowty, 1986; Fleischman, 1990; Givon, 1992; Hopper, 1979). This has been called the *iconicity assumption* (Fleischman, 1990; Hopper, 1979). Following the iconicity assumption, readers would tend to regard an incoming story event as immediately following the previously mentioned event, unless they encounter an overt indicator of a shift in narrative time. In the latter case, an adverb or adverbial of time will function as a processing cue to override the default assumption. Consider again:

3.4) ***I walked to my office, brewed some tea and sat staring out the***

window.

Because there are no specific expressions of time in this sentence, the reader would assume that the three events described in the sentence occurred subsequently and contiguously. In other words, the reader would not assume that a significant amount of time has elapsed between the three events. Thus, without encountering explicit information about the time of the events, the reader would assume that events that are consecutive and contiguous in the text are consecutive and contiguous in the story world.

In a similar fashion, the reader also seems to have a default assumption about the place of the events happening in the described world, namely that events that are consecutive and contiguous in the text take place in the same location. In the case of (3.4), the reader would regard brewing some tea and sitting staring out the window as events that took place in the narrator's office.

So, knowing the reader's general comprehension strategy regarding the information about the time and place of the described events, the writer/speaker would at the onset of a new episode seize the initial position of the transitional sentence as the most crucial spot for placing information about the new temporal or spatial setting. The information about the significant temporal or spatial discontinuity placed here will effectively terminate the previous episode and initiate another one with the new setting.

3.2. Sentences in the English Mid-Rate Group

Although sentences in the high-rate group are regarded as the most representative episode-initial sentences, some sentences that are

identified with less than 70% agreement among the participants are also examined. More specifically, the sentences of this group consist of sentences identified with 40%-69% agreement rates. These sentences I will refer to collectively as the *mid-rate* group. The reason for looking into sentences in this category as well is that these sentences are identified by about half of the participants in the segmentation task. It is plausible to assume that these sentences are identified for similar reasons as those sentences in the high-rate group but somehow differ from them in certain aspects. By examining these sentences in the mid-rate group and making a comparison with those of the high-rate group, I hope to be able to specify the similarity and dissimilarity between them. The sentences identified with 40% or less agreement among the participants are considered too unrepresentative for further analysis.

One important similarity between the mid-rate group and the high-rate group is that the sentence-initial structures of the sentences in the mid-rate group are also characterized by temporal, spatial, or participant discontinuities. In the following excerpts some examples of the mid-rate group sentences are presented. In order for us to compare the mid-rate group data with the high-rate group data, each excerpt starts with an example from the high-rate group:

3.5a) ***Forty feet up a novice climb called Jackie*** **(high-rate group),** I got stuck between a crack and an overhang. I was sure that if I moved either of my feet or my paws, gravity would have its way with me. Trouble was, I was hanging on to the rock face by my now-slipping fingertips, and the horizontal crack I'd wedged my

toes into wasn't much support without my hands. "Want some beta?" Paul asked from below.

3.5b) ***The sport*** **(mid-rate group)** has its own language. Beta is climber speak for advice. Climbs are known as problems. The boulders at the base of the wall are called talis. And if you fall, you become talis food. The moves that you use to climb also have their own names. (followed by more examples of climber-speak)

3.5c) *Fortunately* ***Paul*** **(mid-rate group)** spoke to me mostly in translation. "If you can get up about another foot and reach around that bulge with your right hand, you'll be able to feel a huge handhold," he said. I used whatever strength remained in my left arm, pushed up from my toes and reached, expecting to find the rocky version of a suitcase handle. Instead I found a two-inch ridge. Still, it worked out better than I'd expected. A few seconds later I was again moving all fours upward. Soon I stood atop a three-inch wide ledge. "Good move," Paul called up.

3.5d) ***As I began to feel more confident*** **(mid-rate group),** I fell into a rhythm: Look down for a foothold, step, push with the feet, pull with the hands and grab for another handhold. Look again, step, push, grab. (followed by an account of more climbing actions and the narrator's first experience of falling off a cliff during climbing)

3.5e) ***There is a split second of absolute terror during your first fall*** **(mid-rate group)** when the corner of your eye catches the tops of the trees suddenly rising behind you. Before you can really process the sensation, your harness jerks on your crotch, and you're overwhelmed with gratitude for your equipment.

3.6a) ***The next morning*** **(high-rate group)** I am rubbing my eyes when I wake up. They are throbbing terribly now and there is a sticky wetness on my cheeks. I must have been crying in my sleep. I get up, go into the bathroom and bring my face close to the mirror. I can't see anything wrong with my eyes except that the right one is wet. I hold a washcloth against it and start to call out for my husband, Kenny, then remember he is out. (followed by the narrator's decision to go to see a doctor for her eye trouble)

3.6b) ***After getting someone to watch Kelsey*** **(mid-rate group)** I get the car keys and head out the door. I stare straight ahead, still holding the baby pillow against my injured eye. I drive very slowly, overcompensating for my disability. (followed by an account of how the narrator's eye trouble affected her driving on her way to hospital)

3.6c) ***It has never occurred to me that it is possible to lose just one color*** **(mid-rate group).** I understand that a person can have trouble distinguishing one color from another, but I never knew it was possible to lose an entire part of the spectrum.

3.6d) ***"Let's test your distance vision."*** **(mid-rate group)** Following his instructions, I put my glasses on, cover my left eye and stare straight ahead with my right. There is nothing in front of me but a fuzzy gray cloud. I pull my hand away, cover my left eye again and look straight at the doctor. He disappears into a gray fog. I do this over and over again. Every time I cover my eye, the doctor disappears.

3.7a) ***After I conquered Jackie*** **(high-rate group),** Paul took me over to Three Pines, an easier multiple-pitch climb – which means climbing cliffs that are higher than your rope is long. On these, you have to get to one ledge, stop, then reset the rope to the next ledge. I worked my way up at a decent clip through about 40 feet of rocks stacked like pancakes. Just before the top, though, the pancakes ended, and I had to get myself out of the shelter of the crack I'd been climbing. … With one last push, I swung my legs up and rolled gracelessly onto the ledge. "Nice work," said Paul as I grabbed a seat on the three-foot ledge. "Just kick it here for a while. Enjoy the view."

3.7b) ***New York's Hudson River Valley*** **(mid-rate group)** was a sight to behold: miles of pale-green valley bathed in lush yellow light, budding treetops, blackbirds sailing across the sky. The harder you work to get to the top, I'd been told, the better the view. This one was spectacular.

Focusing our attention upon the mid-rate group sentences here, we can clearly see that they resemble the sentences in the high-rate group in also carrying information about the three types of discontinuities. As far as these sentences are concerned, (3.5d) and (3.6b) are treated as cases of temporal discontinuity, though (3.5d) is a subordinate clause and (3.6b) is a prepositional phrase. (3.5c) clearly indicates a change of participant. (3.6d), which is a piece of direct speech, is also regarded as an indicator of a change in participant because the direct speech is made by another participant and therefore is regarded as suggesting a change in participant. As far as (3.5b) is concerned, because it breaks the current

line of actions by offering an explanation for the technical language used by the mountain climbers, it is categorized as a case in which the subject noun phrase initiates a new theme, thus indicating a thematic discontinuity[3]. The use of a stative verb in the sentence such as *has* also shows this shift from foreground information to background information.

Not only do the mid-rate group sentences resemble their high-rate group counterparts in expressing the various types of discontinuities, they also share the same syntactic features in the expression of these discontinuities: Structures corresponding to temporal or spatial discontinuities are all marked structures, whereas discontinuities in participant or theme are mainly introduced through subject noun phrase. Discontinuities in participant or theme are also found to be introduced by existential sentence, cleft-sentence, and direct speech.

Despite the similarity being discussed here between the sentences of the mid-rate group and the high-rate group, there are also two important dissimilarities. One dissimilarity is that the discontinuities expressed by the sentences of the mid-rate group are typically local changes within the contexts of episodes (which are set by the sentences of the high-rate group). Another look at the three excerpts above will justify this observation.

Another dissimilarity is that in contrast to the high-rate group the mid-rate group contains quite a number of sentences that have been characterized as introducers of new themes. Besides (3.5b), which has already been mentioned above, (3.5e), (3.6c), and (3.7b) are also examples of such sentences. While (3.5e) turns from the preceding actions to the description of the narrator's inner feeling, (3.6c) switches from the main line of events to the narrator's thought. In the case of

(3.7b), *New York's Hudson River Valley is a sight to behold* initiates a few descriptive sentences that specify the magnificent view. Using these sentences, the narrators typically put off their accounts of ongoing actions of the participants temporarily and switch to expressing their thoughts, feelings, responses, observations, and so forth. This seems to be a natural characteristic of narrative discourse. Although a narrative is typically built around human (or animate) participants, providing an account of what they did and/or what happened to them, it may also embed sections that may reveal their inner feelings, depict natural environments, make explanations, or evaluate certain situations. Despite the fact that such sections are recognized by some readers as discrete thematic units, these units are nevertheless different from episodes in that they are not part of the main story line. For the same reason, the transitional sentences that initiate these sections typically contain no temporal or spatial information.

Table 3.2 summarizes the correspondences between sentence-initial structures in the English mid-rate group sentences (listed under *Syntactic Categories*) and various types of discontinuities (listed under *Functional Categories*):

Table 3.2

Sentence-Initial Structures Expressing Different Types of Discontinuities (based on sentences of the English mid-rate group: 16/18 = 88 %)

Syntactic Categories	Functional Categories			
	Temporal Discontinuity	Spatial Discontinuity	Participant Discontinuity	Thematic Discontinuity
Adverb (Phrase)	1			
Prepositional Phrase		1		
Participial Phrase	1			
Noun Phrase	1	1	3	3
Subordinate Clause	2			
Existential Sentence				1
Cleft Sentence				1
Direct Speech			1	
Total	5	2	4	5

There are two sentences in the mid-rate group that cannot be tabulated as the other sentences in the group. One of them is categorized as an informationally-compact sentence as exemplified by (3.4), involving a change of place. The other is a sentence with a verb phrase headed by *decide*, which seems to be able to suggest the start of a few more deliberate actions on the part of the narrator.

3.3. Episode Segmentations Versus Paragraph Divisions in the English Narratives

The result of the narrative segmentation task presented above clearly demonstrates that episode transitions marked by the identified episode-

initial sentences in the English high-rate group are typically characterized by major changes in time, space, or participant. From a slightly different point of view, this means that major changes in time, space, or participant are the main factors that motivate most subjects in the English group to mark the high-rate group sentences as episode boundaries. It is interesting to find out whether these changes also play a role in motivating certain paragraph divisions in the original stories.

As some of the studies cited in Chapter 2 indicate, although some paragraph divisions may be influenced by stylistic or personal preferences, others do have thematic motivations. If we can expect to find a certain degree of overlapping between the episode boundaries identified in this study and the paragraph boundaries chosen by the authors of the original stories, the episode boundaries marked by the high-rate group sentences should be the most promising candidates.

In finding out how well the episode boundaries match with the paragraph boundaries, I looked in the original paragraphed stories for paragraph boundaries that exactly match with the identified episode boundaries. Because the episode boundaries identified with different rates of agreement among subjects may match with the paragraph boundaries in the original stories with different degrees, the comparison between the episode boundaries and paragraph boundaries is made in the three groups into which the episode boundaries identified in this study are already classified: the high-rate group, the mid-rate group, and the low-rate group. Specifically, I take the episode boundaries identified in each group as the reference points and look for the paragraph boundaries that exactly match with these episode boundaries in the original stories. The number of paragraph boundaries that match with the episode

boundaries in each group is recorded. The null hypothesis for this investigation is that there is no relationship between the positions of the two. The research hypothesis is that there is a relationship between the two. Table 3.3 provides the numbers of episode boundaries and their corresponding paragraph boundaries in the three English data groups:

Table 3.3

Episode Boundaries and Corresponding Paragraph Boundaries in the English Narratives

English Speaker	Episode Boundary	Paragraph Boundary
High-Rate Group	14	13
Mid-Rate Group	18	11
Low-Rate Group	48	22

Chi-square tests are carried out to find the extent to which the subjects' segmentations corresponded to paragraph boundaries in the original text. As we can see, in the High-Rate Group in Table 3.3, there are 14 episode boundaries and 13 original paragraph markers, with 13 of the 14 episode boundaries matching the paragraph boundaries, and one which does not. Under the null hypothesis, where no matches are expected, one would thus anticipate that half of the episode boundaries would occur at a paragraph boundary and half would not. This yields Table 3.4 for the data of the High-Rate Group.

Table 3.4

Matches and Mis-Matches in the English High-Rate Group Data

	Matches	Mis-Matches
Observed	13	1
Expected	7	7

The resulting X^2 is significant ($X^2 = 10.286$, $p < .0018$). Similarly, chi-square tests are also conducted on the matches and mismatches in the mid-rate and low-rate group data, as presented in Tables 3.5 and 3.6 respectively:

Table 3.5

Matches and Mis-Matches in the English Mid-Rate Group Data

	Matches	Mis-Matches
Observed	7	11
Expected	9	9

Table 3.6

Matches and Mis-Matches in the English Low-Rate Group Data

	Matches	Mis-Matches
Observed	22	26
Expected	24	24

The resulting chi-square values for the mid-rate group ($X^2 = .889$) and the low-rate group ($X^2 = .333$) are non-significant.

As the values of chi-square tests on the matches and mismatches between each paired numbers indicate, the null hypothesis is rejected in the English high-rate group (for which the chi-square value is high) but not in the mid-rate and low-rate groups (for which the chi-square values are low). The high chi-square value for the high-rate group data (X^2 = 10.29, p = .0018) shows that there is a significant correlation between the identified episode boundaries in the English high-rate group and their corresponding paragraph boundaries.

In more general terms, this means that to a certain extent paragraph divisions in written narratives are made on the same thematic grounds as episode segmentations. The episode boundaries marked by the high-rate group sentences match well with their corresponding paragraph boundaries in the original narratives. Since the episode boundaries marked by the high-rate group sentences are characterized by major changes in time, space, or participant, this characterization also applies to their corresponding paragraph boundaries. On the other hand, the poor matching between the paragraph boundaries and episode boundaries identified in the English mid-rate group (X^2 = .889) and low-rate group (X^2 = .333) indicates that in these cases the criteria for choosing episode or paragraph boundaries are not clear. Since the episode boundaries marked by the mid-rate group (and indeed the low-rate group) sentences are typically characterized by some local changes in time, space, participant, or theme, these local changes prove to be insufficient in guiding shared choices of episode or paragraph boundaries. In these situations personal preferences or stylistic concerns may play a role and bring about different episode segmentations or paragraph divisions. This observation is in line with the results of some previous studies (e.g.,

Bond & Hayes, 1984; Stark, 1988) which indicate that the paragraph divisions made by the subjects are often quite different from those made by the original authors. As far as the narrative type of discourse is concerned, the above analysis of the high-rate group data shows where the common ground is whereas the discussion on the mid-rate and low-rate group data points out the cause of the differences.

3.4. Summary

The result of the narrative segmentation performed by English-speaking participants strongly supports the hypothesis of the present study and gives a positive answer to the first research question. The identified episode-initial sentences in the high-rate group are characterized with major changes in time, space, or participant. This reflects the important roles played by the discourse elements of time, space, and participant in the episodic structure of a narrative. The parts of a narrative addressing various themes are regarded by the majority of the participants as secondary units embedded in the units of episode. In episode-initial sentences the changes in time and space are typically encoded in marked structures whereas the changes in participant are often indicated by subject noun phrases. The episode boundaries marked by sentences in the English high-rate group are found to match closely with their corresponding paragraph boundaries in the original stories. Both are characterized by major changes in time, space, or participant.

A more comprehensive summary of the results of Experiment 1 will be provided after the Chinese data from Experiment 1 is analyzed in the next chapter.

Notes

[1]The English word *now* has quite a few usages. Apart from the most common one meaning "at the present", it can also be used (particularly in narratives) to indicate "at this time (in the past)" (Longman Dictionary of Contemporary English, 1978, p. 748). For example, *He left school in 1830; now he was able to go and live in London* (ibid.). In this context *now* serves as a temporal adverb referring to the time indicated in the previous sentence. An important feature of this usage is that *now* refers to a specific time in the past that had already been indicated by a previous context. The word *now* as used in Excerpt 3.1 is considered a similar case because the narrator used it to take the reader back to the time of the narrative world (when the elephant started to show symptoms of sickness) after he briefly described his earlier interactions with the elephant. This change in time was immediately specified by the participial phrase *hearing of her elephantine raspberries*.

Another common usage of *now* is as a so-called *discourse marker* "with weakened meaning to attract attention or to express a warning, command, etc." (Longman Dictionary of Contemporary English, 1978, p. 748). Consider an example of this usage: *Now the question I've been talking about seems important, because...*(ibid.) The function of *now* as such a discourse marker may also be performed by other English expressions such as *now then*, *there now*, or *now, now* (ibid.). For instance, if we replace *now* in the above example with *now then*, it would fit very well in the context because it serves the same function. However, if we replace *now* in Excerpt 3.1 with *now then*, it would be quite out of

place. Our sense of it as being out of place indicates that *now* in Excerpt 3.1 is not used as a discourse marker. Used as a discourse marker, *now* also contrasts with its usage as a temporal adverb explained above in that it does not have any link in time with a previous context.

I would like to thank Dr. Gary Prideaux for helping me make the above analysis.

[2]The parentheses here indicate that both adverb and adverb phrase may be included in this category.

[3]A theme is defined as any non-human topic in this study. A thematic discontinuity is thus a change in such a topic.

Chapter 4

Episode Transitions and Their Encodings In Chinese Written Narratives

4.0. Introduction

In this chapter I will analyze the Chinese episode-initial sentences identified in Experiment 1. A characterization will be made of the linguistic forms used for expressing various episode transitions in these sentences. This will be followed by a comparison between the episode segmentations obtained in this study and the paragraph divisions made by the original authors in the Chinese narratives. A summary of the results covering both English and Chinese data from Experiment 1 will be provided at the end of this chapter.

4.1. Sentences in the Chinese High-Rate Group

The segmented Chinese texts obtained from Experiment 1 are processed in the same way as their English counterparts: After all the identified sentences are tabulated, those identified by 70% or more of the subjects are picked out as the high-rate group and analyzed as the prototypical episode-initial sentences. The analysis of these sentences enables us to see whether the Chinese readers would segment written narratives into episodes at points of major changes in time, space, or participant. It also reveals how these changes are expressed in Chinese episode-initial sentences. Within these sentences, my analysis is focused on the structures placed at the initial position of the sentence. Provided in the two excerpts below are some examples of these structures[1]:

4.1a) shěngchéng xià lái de nèi ge
provincial capital descend come NOM that CL

zhīqīng kāishǐ tīng bù dǒng
educated youth initially listen not understand

hòulái míngbái le júede yǒuqù jiù
later on understand PFV feel funny just

yí xiào.
one laugh

"**The educated youth that came from the provincial capital** did not understand (the term) in the first place. Understanding it later on, he thought it was funny and laughed about it." (followed by an account of how the young man differed from the villagers in speech and for that reason was laughed at by them)

4.1b) ruògān nián hòu, shěngchéng xià lái
several years after provincial capital descend come

de nèi ge zhīqīng bùjǐn tīngdǒng
NOM that CL educated youth not only understand

le xiāngcūn de fāngyán líyǔ, érqiě
PFV countryside ASSOC dialect slang but also

pō yǒu yánjiū.
quite have research

"**Several years later,** the educated youth that came from the provincial capital not only understood the dialect and slang in the rural area but actually knew quite a lot about them." (followed by an account of how he got the nickname *Wotian* from the villagers)

4.1c) Wōtiān qīng shòu, báijìng, tiāntíng bǎomǎn,
Wutian pretty thin fair and clean forehead plump

shǒuzhǐ shuǐcōng yíyàng.
finger water onion same shape

"**Wotian** is pretty thin and looks fair and clean. His forehead is plump. His fingers are just like water onions." (followed by an account of how the local people accepted him)

4.1d) zhīqīng gāng xià lái de shíhòu,
educated youth just descend come NOM time

cūnlǐrén yǒu xīnxiān gǎn, yǒu shì méi
villager have fresh interest have thing not

shì dōu xǐhuān zuān zhīqīng wū
thing all like go into educated youth room

zuòzuò.
sit a while

"**When the educated youths first came**, the villagers had great interest. Whether or not they had anything to do (with the educated youths), they all liked to go into their rooms and sit for a while." (followed by an account of how the young man *Wotian* had his first romantic experience with a local girl)

4.2a) dào Chāngdū hòu, wǒ qǐng xiàn rénshì
reach Changdu after I ask county personnel

júzhǎng Xiàngbā zuò fānyì, tā
bureau director Xiangba to be interpreter he

xīnrán dāyìng.
gladly agree

"**After arriving at Changdu**, I asked the director of the personnel bureau of the county to be my interpreter. He gladly agreed." (followed by a description of the condition of the road in Tibet)

4.2b) hé wǒ yìqǐ dào zàngdōng de sījī jiào
with I together go Tibet-east NOM driver call

Gésāng, shì Rìkāzé Báilǎng xiàn rén.
Gesang be Rikaze (place) Bailang county folk

"The driver that went to the east of Tibet with me was called Gesang. He was from Bailang County in Rikaze District." (followed by a description of the driver)

4.2c) chū Chāngdū bù yuǎn, jiù líkāi le
leave Changdu not far soon leave PFV

chuānzàng gōnglù de zhǔgàndào.
Sichuan-Tibet road ASSOC main line

"Soon after we were out of Changdu, (we) left the main line of the Sichuan-Tibet road. (followed by a description of the condition of the road ahead)

4.2d) bàngwǎn shífēn, wǒmen dào le Cáiwéi qū.
evening time we reach PFV Caiwei district

"In the evening, we arrived at Caiwei district." (followed by a description of the place where the district administration is located)

4.2e) qūlǐ zhǐ yǒu jǐ ge rén
district administration only have several CL people

zài. qūlǐ de lǐngdǎo dào
remain district administration ASSOC official to

xiànlǐ kāi huì qù le.
county hold meeting go PFV

"There are only a few people left at the district administration. The officials of the district administration have gone to the county to attend a meeting." (followed by an account of their experience of having dinner at the local government)

4.2f) chī le wǎnfàn, Gésāng zài yuànzi lǐ
eat PFV supper Gesang at courtyard in

cā chē, wǒ hé Xiàngbā sànbù zǒu chū.
clean car I with Xiangba take a walk go out

"**After we had supper**, Gesang was cleaning his car in the courtyard. I and Xiangba went out in the manner of taking a walk." (followed by an account of visiting a local Tibetan in his house)

4.2g) hòulái, wǒ dào Gǎmǎ sì yīhòu, céng wèn
later on I go to Gama temple after once ask

yí ge zhōngnián lǎma, sìlǐ shìfǒu yǒu
one CL middle-aged lama temple whether have

guò yí ge sēngrén, hòulái dào Cáiwei
EXP one CL monk later on go to Caiwei

qū dāng le kānlínrén.
district become PFV forest-keeper

"**Later on, after I went to Gama Temple**, I asked a middle-aged lama if a monk from his temple had left for Caiwei district and become a forest-keeper."

In the analysis of the Chinese high-rate group sentences, (4.1a) and (4.2b) represent cases where subject noun phrases (each modified by a relative clause) introduce new participants into the story. (4.1c) is a case of subject noun phrase serving the same function but has no modification. It was the iteration of a nickname given by the villagers in the previous episode. In cases where the subject noun phrases are modified, either by a relative clause or a genitive phrase, the modifying structures often provide the necessary background information or convenient reference point for the introduction of the new participant. Except in the two cases of existential sentences, the changes of participants, whether new or given, are introduced in the form of a noun phrase at the initial position of the sentence.

(4.2e) is in the form of an existential sentence. An existential sentence in Chinese such as (4.2e) starts with a location, which is conceptualized as a possessor. What exists at this location is presented as the possessed. Despite this, I do not tabulate this initial noun phrase of location as a structure involving a change of location because in these circumstances the location has already been activated in the previous episode. Instead I treat the whole sentence pattern as a special form for introducing new participants, which, unlike the subject noun phrases in normal sentences, comes at the end of the sentence. Following Lambrecht (1988, pp. 15-16), I regard the sentence-initial noun phrase of location as serving the function of anchoring the new referent in the discourse.

Temporal discontinuity is also expressed in more than one way. While (4.1b) and (4.2d) are recorded as instances of noun phrase, (4.2g) is regarded as a case of temporal adverb. As a subordinate clause, (4.1d) and (4.2f) provide specific information of time relating to certain events. (4.2a) and (4.2c) are subordinate clauses of time in form and (4.2c), just like (4.2f), contains no temporal conjunction. However, the changes of place indicated by their predicates seem to be more informative than the reference point of time suggested by the temporal conjunction as in the case of (4.2a) or zero conjunction as in the case of (4.2c). Based on this reasoning, (4.2a) and (4.2c) are categorized as two cases of subordinate clauses responsible for spatial discontinuities.

Table 4.1, following, records the correspondences between initial structures of the sentences in the Chinese high-rate group (listed under *Syntactic Categories*) and the specific discontinuities they indicate (listed under *Functional Categories*):

Table 4.1

Sentence-Initial Structures Expressing Different Types of Discontinuities (based on sentences of the Chinese high-rate group: 22/23 = 96%)

Syntactic Categories	Functional Categories		
	Temporal Discontinuity	Spatial Discontinuity	Participant Discontinuity
Adverb (Phrase)	3		
Noun Phrase	5		4
Modified Noun Phrase			5
Subordinate Clause	2	3	
Existential Sentence			2
Total	10	3	11

The Chinese high-rate group consists of 23 sentences. Among the 22 sentences recorded in Table 4.1, two sentences contain two initial structures corresponding to two different discontinuities. As a result, 24 tokens are found in Table 4.1. One sentence in the Chinese high-rate group is categorized as a case of thematic discontinuity. Because it is the only case of thematic discontinuity it is treated on its own.

From the above discussion we can see that most of the sentences in the Chinese high-rate group are found to be characterized by major changes in time, space, or participant. We now focus our attention on the linguistic forms in which these changes are expressed.

Except in the two existential sentences, a change in participant is consistently expressed by a subject noun phrase at sentence-initial

position. Changes in time and space, on the other hand, are expressed by such preposed structures as adverbs, adverb phrases, noun phrases, and subordinate clauses. The expressions of these changes in the Chinese data are similar to those observed in the English data in the sense that as carriers of information about important changes in time, space, or participant they need to be placed right at the very beginning of an episode (unless a special sentence pattern such as existential sentence is used).

4.2. Sentences in the Chinese Mid-Rate Group

For the same reason that the sentences in the English mid-rate group are studied, I also examine the sentences in the Chinese mid-rate group, which are identified with 40%-69% agreement rates. When the sentences in this group are compared with those in the high-rate group, they are found to resemble the high-rate group sentences in that their initial-structures are also characterizable in terms of temporal, spatial, or participant discontinuities. However, these structures mainly express local changes within the contexts of episodes. In the following excerpts, (4.3b), (4.4b), and (4.5b) are three examples of the mid-rate group sentences that express changes in time, space, and participant respectively. In order to show their contrast with the high-rate group sentences, each excerpt starts with an example from the high-rate group sentences.

4.3a) chī le wǎnfàn, Gésāng zài yuànzi lǐ
eat PFV supper Gesang at courtyard in

cā chē, wǒ hé Xiàngbā sànbù zǒu chū.
clean car I with Xiangba take a walk go out

"After we had supper (high-rate group), Gesang was cleaning his car in the courtyard. I and Xiangba went out in the manner of taking a walk." (followed by an account of visiting a local Tibetan in his house)

4.3b) dāngshí, wǒmén shì yǐ qiú kǒu chá
that time we be by request CL tea

de míngyì dào tā mùwū qù de.
NOM excuse to he cabin go NOM

"At that time (mid-rate group), we went to his cabin under the excuse of asking for a mouthful of tea."

4.4a) qūlǐ zhǐ yǒu jǐ ge rén
district administration only have several CL people

zài.
remain

"There are only a few people remaining at the district administration (high-rate group)." (followed by an explanation of why the visitors got some good food later)

4.4b) zài nèi jiān hūnàn de xiǎo wū,
at that CL dim NOM small room

qūlǐ de jǐ ge rén
district administration ASSOC several CL people

zhǔ le yí dà guō "bāzhāmógú" qǐng
cook PFV one big wok Bazhamogu (food) invite

wǒmén chī.
us eat

"In that small dim room (mid-rate group), a few people at the district administration cooked a big wok of Bazhamogu and invited us to eat it."

4.5a) dāngshí liánduìli zhàn zhe hǎo jǐ
that time company (ground) stand DUR quite several

ge rén, dōu zài guānwàng zhe zhèi
CL people all DUR watch DUR this

duì Hāsākè fùzǐ de xiāngjiàn.
couple Kazakh father son ASSOC meeting

"**At that time, on the company grounds stood quite a few people (high-rate group),** all watching the meeting between the father and son of a Kazakh family." (followed by a description of the father and the difficulties for his long-distance travelling."

4.5b) wǒ zǒu guòqù kàn le tā nèi pǐ mǎ.
I walk over look PFV he that CL horse

"**I (mid-rate group)** walked over and had a look at his horse." (followed by a description of the horse.)

Apart from the above uses, quite a few mid-rate group sentences are also found to be introducers of new themes (rather than new participants). What these new-theme sections provide are descriptions of certain surroundings, personal feelings, comments, evaluations, explanations, and so forth. These sections are embedded in the accounts of the various events that form the main line of the stories. In the mid-rate group, which consists of 19 sentences in total, there are 8 sentences introducing new themes. The following excerpts contain several examples of such sentences from the mid-rate group. In order to show their contrast with the high-rate group sentences, each excerpt starts with a high-rate group example.

4.6a) bàngwǎn shífēn, wǒmén dào le Cáiwéi qū.
evening time we reach PFV Caiwei district

yòng lóufáng wéichéng de dà yuàn luò
by building enclose NOM big courtyard locate

zài yí ge tǔtái shàng.
at one CL high ground on

"**In the evening (high-rate group)**, we arrived at Caiwei district. The big courtyard formed by the surrounding buildings was located on a piece of high ground." (followed by a general description of the place where the district administration is located)

4.6b) pōdì wàimiàn xiàng xià shì yí piàn
slope outside towards below be one CL

guànmù.
bush

"**The lower part of the slope (mid-rate group)** is covered by a stretch of bushes." (followed by a description of other things nearby)

4.7a) chī le wǎnfàn, Gésāng zài yuànzi lǐ
eat PFV supper Gesang at courtyard in

cā chē, wǒ hé Xiàngbā sànbù zǒu chū.
clean car I with Xiangba take a walk go out

"**After we had supper (high-rate group)**, Gesang was cleaning his car in the courtyard. I and Xiangba went out in the manner of taking a walk." (followed by an account of visiting a local Tibetan in his house)

4.7b) rúguǒ wǒ xiě de bú shì wǒ zài
if I write NOM not be I at

zàngdōng de zhēnshí jīnglì, ér shì
Tibet-east NOM true experience but be

zài xīnwùshényóu xiě mǒu yì piān
DUR mind travel wildly write certain one CL

xiǎoshuō wǒ huì cóng zhèi ge mǎn liǎn
novel I can from this CL full face

zhòuwén de nánrén kāishǐ, biānchū hěn
wrinkle NOM man start, invent quite

yǒumèilì de gùshì lái.
entertaining NOM story come

"If I were not writing about my true experience in the east of Tibet (mid-rate group), but writing a novel in a most imaginative way, I could start from this man who has wrinkles all over his face and invent a very entertaining story."

4.7c) huàtí jiēzhe zìrán chě dào wǒmén qù
topic then naturally turn to we go

shénme dìfāng.
what place

"**The topic (mid-rate group)** then naturally turned to where we would go." (followed by a conversation about the place the visitors would go to)

4.7d) Cáiwéi de kānlínrén gěi wǒ zài
Caiwei ASSOC forest keeper for I at

Xīzàng de jīnglì tígòng le yí ge
Tibet NOM experience provide PFV one CL

lìzhèng, nà jiù shì dàduōshù Xīzàngrén
evidence that simply be most Tibetan

shēnghuó zài xiànshí hé shénhuà zhīzhōng.
live at reality and mythology inside

"**The forest keeper of Caiwei (mid-rate group)** provides a piece of evidence for my experience in Tibet. That is, most Tibetans live in both reality and mythology."

In (4.6), the section led by (4.6b) is a description of an area outside the courtyard where the district administration is located. When this

surrounding area is being described the development of the story seems to have come to a halt. In the form of a subordinate clause of condition, (4.7b) initiates a comment from the narrator. (4.7c) indicates a switch in topic in the conversation reported in the story. Although (4.7d) is a modified noun phrase referring to the visited person, it does not introduce this person into the main line of the story again. It actually initiates a comment from the narrator.

Table 4.2 in the following records the correspondences between most initial structures of the sentences in the Chinese mid-rate group (listed under *Syntactic Categories*) and the specific discontinuities they indicate (listed under *Functional Categories*):

Table 4.2

Sentence-Initial Structures Expressing Different Types of Discontinuities (based on sentences of the Chinese mid-rate group: 17/19 = 89 %)

Syntactic Categories	Functional Categories			
	Temporal Discontinuity	Spatial Discontinuity	Participant Discontinuity	Thematic Discontinuity
Prepositional Phrase		1		
Noun Phrase	4		4	5
Modified Noun Phrase				1
Subordinate Clause				1
Rhetorical Question				1
Total	4	1	4	8

There are two sentences in the mid-rate group that cannot be tabulated as the other sentences in the group. One such sentence forms a one-

sentence unit because the sentence is a statement announcing that something unusual will happen. The other sentence is one that involves a change of perspective. The previous sentences were devoted to the description of the participant from the narrator's perspective. But the verb used in this sentence changes such a perspective and indicates that the section it leads is about what the participant consciously does himself.

As shown in the above presentation, the Chinese sentences in both high- and mid-rate groups use more or less the same syntactic structures for expressing the three types of discontinuities. In the analysis of the English data, the sentence-initial structures responsible for indicating changes in time and space are characterized as marked (in comparison with their canonical positions at the end of the sentence). The use of these marked structures is attributed to serving the discourse function to signal the new setting for another episode. In the next section, I will have a brief look at how structures carrying information about time and space are generally used in the Chinese language and on the basis of this offer a characterization of the Chinese sentence-initial structures as used in the identified episode-initial sentences.

4.3. Chinese Adverbial Phrases and Subordinate Clause of Time

The sentence-initial structures recorded in the Chinese high-rate group include adverb, noun phrase, and subordinate clause. Another commonly used phrase for expressing information about time or space in Chinese is the prepositional phrase. However, the prepositional phrase is somehow missing in the Chinese high-rate group data. In order to cover all the common types of expressions of time and space in my discussion and provide some information about the Chinese counterpart of the English

prepositional phrases found in the sentence-initial structures of the English high-rate group sentences, I will include prepositional phrases in my discussion. I will discuss adverbs, prepositional phrases, and noun phrases that carry temporal and spatial information under the label of adverbial phrases of time and space. I will deal with subordinate clauses as a separate category.

In Chinese an adverbial phrase of time or place typically occurs before the verb and after the subject, as in the following examples:

4.8) yīshēng hòulái zhǒu le.
doctor later on leave PFV
"The doctor left later on."

4.9) wǒ míngtiān qù Niǔyuē.
I tomorrow go New York
"I will go to New York tomorrow."

4.10) nèi ge rén zài hú biān zhàn zhe.
that CL person at lake side stand DUR
"That person is standing by the lake."

4.11) lǎoshī zài hēibǎn shàng xiě tōngzhī.
teacher at blackboard on write notice
"The teacher is writing a notice on the blackboard."

4.12) tā zài chēkù lǐ xiōu chē.
3sg at garage in repair car
"He/She is repairing his car in the garage."

In the postverbal position, the use of adverbial phrases is more restricted. A temporal adverb normally cannot be used after the verb it modifies. Compare, for instance, the following pairs of examples:

4.13a) yīshēng hòulái zhǒu le.
doctor later on leave PFV

"The doctor left later on."

4.13b) *yīshēng zhǒu le hòulái
doctor leave PFV later on

4.14a) wǒ dāngshí zhàn zài lù biān.
I that time stand at road side

"I stood by the road at that time."

4.14b) * wǒ zhàn zài lù biān dāngshí
I stand at road side that time

4.15a) wǒ míngtiān qù Niǔyuē.
I tomorrow go New York

"I will go to New York tomorrow."

4.15b) *wǒ qù Niǔyuē míngtiān
I go New York tomorrow

A prepositional phrase of time is not allowed to occur after the verb. The following examples will illustrate this:

4.16a) xǔduō rén zài zǎochén duànliàn shēntǐ.
many people at morning exercise body

"Many people do physical exercises in the morning."

4.16b) *xúduō rén duànliàn shēntǐ zài zǎochen
many people exercise body at morning

The prepositional phrase of place can modify certain verbs in both preverbal and postverbal positions. According to Li and Thompson (1981, pp. 401-406), these verbs include the so-called "verbs of posture" such as zhàn (stand), shuì (sleep), zuò (sit), tǎng (lie), zhù (have

residence), piāo (float) and so forth. They also include "verbs of appearing" such as fāshēng (happen), chūxiàn (appear), chūshēng (be born), shēngzhǎng (grow up), sǐ (die), chǎnshēng (occur), and so on. The "verbs of placement" form another group of such verbs. Their members may be fàng (put, place), zhòng (plant), huà (draw, paint), kè (carve), cáng (hide), xiě (write), chāo (copy), and so forth. However, these verbs are relatively few in number (Li & Thompson, 1981, p. 398). The following three examples contain one verb from each of the above-mentioned categories of verbs:

4.17a) wǒ de yí ge péngyǒu zài Shànghǎi
I ASSOC one CL friend at Shanghai
zhù.
live

"A friend of mine lives in Shanghai."

4.17b) wǒ de yí ge péngyǒu zhù zài
I ASSOC one CL friend live at
Shànghái.
Shanghai

"A friend of mine lives in Shanghai."

4.18a) wǒ gēge zài Xiānggǎng chūshēng.
I older brother at Hong Kong was born

"My older brother was born in Hong Kong."

4.18b) wǒ gēge chūshēng zài Xiānggǎng.
I older brother was born at Hong Kong

"My older brother was born in Hong Kong."

4.19a) tā zài chē lí cáng qiāng.
3sg at car in hide gun

"He/She hid the gun in the car."

4.19b) tā bǎ qiāng cáng zài chē li.
3sg BA gun hide at car in

"He/She hid the gun in the car."

However, when used together with certain "verbs of displacement" such as tiào (jump), diào (fall), tuī (push), liú (flow), and so forth, the locative phrase occurring in preverbal position has a different meaning from that occurring after the verb, as the following example may show:

4.20a) tā zài shāfā shàng tiào.
3sg at sofa on jump

"He/She is jumping on the sofa."

4.20b) tā tiào zài shāfā shàng.
3sg jump at sofa on

"He/She jumped onto the sofa."

In (4.20a), the prepositional phrase zài shāfā shàng, occurring before the verb, denotes the general location of the action "jump". In other words, the person is jumping up and down on the sofa. In (4.20b), however, the postverbal prepositional phrase indicates the location of the subject as a *result* of the jump.

Another position in which a Chinese adverbial phrase of time or place is commonly found is the sentence-initial position (Gao, Tan, & Wang, 1992, p. 517; Li & Thompson, pp. 94-95, pp. 320-321; Liu, 1988, p. 108), as in the following examples:

4.21) hòulái yīshēng zhǒu le.
later on doctor leave PFV

"Later on the doctor left."

4.22) zài jiālǐ wǒ yǒushí bāng mǔqīn zuò shì.
at home I sometimes help mother do thing

"At home I sometimes help my mother do things."

4.23) míngtiān wǒ qù Niǔyuē.
tomorrow I go New York

"Tomorrow I will go to New York."

Many studies have offered analyses of these adverbial phrases taking sentence-initial positions. Li and Thompson (1981, pp. 320-321), for instance, characterize the adverbs of time such as jīntiān (today) and zhànshí (temporarily) occurring sentence-initially as "movable adverbs of time". One of the major functions of these "sentential adverbs" is to provide a semantic frame within which the event described by the sentence occurs. With regards to the "time and locative phrases" (which consist of prepositional phrases or noun phrases) occurring at sentence-initial position, Li and Thompson (1981, pp. 94-95) regard them as topics because "they set the frame within which the rest of the sentence is presented, they are definite, referring to places and times about which the hearer already knows, and they may be followed by a pause particle" (p. 95). Since Chinese in their view is a "topic-prominent" language, the adverbial phrases in sentence-initial position form a popular syntactic pattern.

Similarly, Hu (1992, p. 384) characterizes the sentence-initial adverbial phrases of time and place as adverbials modifying the whole sentence. They either serve as a good means to make the information of time or place prominent or facilitate a coherent development of the discourse. In the view of Gao, Tan, and Wang (1992, p. 517), adverbial phrases of time and place occurring at sentence-initial position can serve

to form a link with the previous part of the discourse or provide a setting for more than one sentence to follow.

In short, most studies that have offered analyses of Chinese adverbial phrases in sentence-initial position tend to regard them as a common alternative syntactic pattern (as compared to their occurrences in the immediately preverbal position and postverbal position). In other words, unlike the adverbial phrases of time or place at the sentence-initial position in English, their Chinese counterparts are not regarded as syntactically marked structures. They contribute to a rather prominent language-specific phenomenon of "topics".[2] Yet, as revealed in the above survey and indeed the results of the segmentation task of this study, they are capable of playing similar roles to their English counterparts in representing episode transitions characterized by major changes in time and space.

We now turn our attention to the Chinese subordinate clause of time which, like subordinate clauses of concession and condition[3], is preposed before the main clause in the majority of cases (Chao, 1968, pp. 113-120; Li & Thompson, 1981, pp. 631-643; Wang, 1999). It normally appears in one of the following forms:

4.24)) zhīqīng gāng xià lái de shíhòu,
educated youth just descend come NOM time

cūnlǐrén yǒu xīnxiān gǎn.
villager have fresh interest

"**When the educated youths first came**, the villagers had great interest."

4.25) wǒ dàodá tǐyùchǎng shí, bǐsài hái méi kāishǐ.
I arrive stadium time match still not start

"When I arrived at the stadium, the match had not started yet."

4.26) xià kè yǐhòu, wǒ qù yóuyǒng.
descend class after I go swim

"After (I) get out of class, I go swimming."

4.27) wǒ xià kè yǐhòu, qù yóuyǒng.
I descend class after go swim

"After I get out of class, I go swimming."

In the four examples given here, the subordinate clause occurs before the main clause. In (4.24) and (4.25) the subordinate clause has its own subject whereas in (4.26) and (4.27) the subordinate and main clauses share the same subject. The commonly used conjunctions for subordinate clause of time include "...shí (when...)", "...de shíhòu (when...)", "...yǐqián (before...)", "...yǐhòu (after...)", "...yī...jiù... (as soon as...)", and so forth. Sometimes no conjunctions are necessary since in Chinese "the relative word order between two syntactic units is determined by the temporal order of the status which they represent in the conceptual world"[4] (Tai, 1985, p. 50) and therefore requires no conjunctions to mark the iconic relationship between two clauses. Sentences (4.28) and (4.29) below contain two such examples:

4.28) huí dào jiā, wǒ gǎnjǐn zuò fàn.
return to home I hastily cook meal

"When I returned home, I lost no time in cooking meal."

4.29) wǒ yǒu shíjiān yídìng péi nǐ qù
I have time definitely accompany you go

kàn diànyǐng.
watch movie

"**When/If I have time,** I'll definitely go to watch a movie with you."

With regard to the above examples, in cases exemplified by (4.24) and (4.25) where the subordinate clause has its own subject, there is no alternative pattern of occurrence: the subordinate clause always occurs before the main clause (and also before the subject of the main clause). In cases exemplified by (4.26), (4.27), (4.28), and (4.29), however, where the subordinate clause and the main clause share the same subject, there is an alternative pattern of occurrence. In such cases, the shared subject may occur in the main clause as in (4.26) and (4.28) or in the subordinate clause as in (4.27) and (4.29). The subordinate clause in (4.26) and (4.28) that contains no subject or even a temporal conjunction gives more prominence to the message of the predicate of the clause. In this aspect it is similar to the preposed adverbial phrase that has just been discussed and therefore performs the same function of setting the frame of time and place for the rest of the sentence or the following sentences. However, in cases where the shared subject occurs in the subordinate clause, this shared subject may be highly activated, as shown in cases of pronouns. In other words, in such cases, the shared subject carries little information. It is the predicate of the subordinate clause that is more informative. As a result, under these circumstances, whether the shared subject occurs in the main clause or in the subordinate clause does not make much difference in terms of the distribution of information in the subordinate clause followed by the main clause. The pattern of distribution of information is more or less the same. The subordinate clause provides a point of time relating to a specific event or act whereas the main clause states another event or act in a focused way. In the Chinese written data

including both high- and mid-rate groups, there are 6 cases of preposed subordinate clause of time. Two of them have their own subjects. The other four are the subjectless type we have been discussing.

We can see from the above discussion that the Chinese subordinate clause of time is also used in different ways from its English counterpart. Its relatively fixed position before the main clause seems to be the result of observing the Principle of Temporal Sequence (Tai, 1985). Its preposed placement makes it a readily available structure to be used for setting the temporal or spatial frame for a new episode. The examples from the Chinese written data have certainly made this role more observable.

4.4. Episode Segmentations Versus Paragraph Divisions in the Chinese Narratives

In the last chapter, the episode segmentations made by the English speakers in Experiment 1 are compared with the paragraph divisions made by the authors of the original stories. The purpose of this comparison is to find out whether paragraph divisions made in the original stories and episode segmentations made in this study share the same thematic motivations to a certain extent. The comparison reveals that there is a significant correlation between the episode boundaries marked by the high-rate group sentences in this study and their corresponding paragraph boundaries in the original stories. Since the episode boundaries marked by the high-rate group sentences are characterized by major changes in time, space, or participant, this finding tells us that these changes also play an important role in motivating certain paragraph divisions in the original stories. On the contrary, the

poor matching between the paragraph boundaries and episode boundaries identified in the English mid-rate and low-rate groups proves that local changes in time, space, participant, or theme are not sufficient in guiding shared choices of either episode boundaries or paragraph boundaries.

For the same purpose, the episode segmentations made by the Chinese speakers are now compared with the paragraph divisions made by the authors of the original Chinese stories. The comparison follows the same procedure and methodology as in dealing with the English data. The null hypothesis is also that there is no relationship between the positions of episode boundaries and paragraph boundaries. Under the null hypothesis, where no matches are expected, one would thus anticipate that half of the episode boundaries would occur at a paragraph boundary and half would not. Table 4.3 below provides the numbers of episode boundaries and their corresponding paragraph boundaries in the three Chinese data groups whereas Tables 4.4, 4.5 and 4.6 present the specific numbers of matches and mis-matches in the three groups:

Table 4.3

Episode Boundaries and Corresponding Paragraph Boundaries in the Chinese Narratives

Chinese Speaker	Episode Boundary	Paragraph Boundary
High-Rate Group	23	20
Mid-Rate Group	19	15
Low-Rate Group	55	22

Table 4.4

Matches and Mis-Matches in the Chinese High-Rate Group Data

	Matches	Mis-Matches
Observed	20	3
Expected	11.5	11.5

Table 4.5

Matches and Mis-Matches in the Chinese Mid-Rate Group Data

	Matches	Mis-Matches
Observed	15	4
Expected	9.5	9.5

Table 4.6

Matches and Mis-Matches in the Chinese Low-Rate Group Data

	Matches	Mis-Matches
Observed	22	33
Expected	27.5	27.5

Chi-square tests are used to measure the extent to which the subjects' segmentations corresponded to paragraph boundaries in the original text. The chi-square values for the Chinese high-rate group ($X^2 = 12.565$, $p = .0007$) and the mid-rate group ($X^2 = 6.368$, $p = .0112$) are both

significant. The chi-square value for the low-rate group (X^2 = 2.200ns) is non-significant. As these values indicate, the result of the Chinese data is largely compatible with that of the English data in that the null hypothesis is also rejected in the high-rate group (for which the chi-square value is high) but not in the low-rate group (for which the chi-square value is low). Again, the high chi-square value for the high-rate group data proves that there is a significant correlation between the identified episode boundaries in the Chinese high-rate group and their corresponding paragraph boundaries. The low chi-square value for the low-rate group data makes it clear that no such correlation exists between the episode boundaries in the Chinese low-rate group and their corresponding paragraph boundaries. Based on this observation, we can come to more or less the same conclusions as we did with the English data. That is, major changes in time, space, or participant provide clear-cut boundaries for both episodes and paragraphs in narrative discourse. When there is a lack of such changes, both episode boundaries and paragraph boundaries become less clear.

4.5. Summary

As the presentation and analysis have revealed above, the result of the narrative segmentation performed by native speakers of Chinese also supports the hypothesis of the present study and provides a positive answer to the first research question, namely that the speakers do segment a narrative into units of episode at points of major changes in time, space, or participant. When we compare the Chinese data with the English data, we find them quite compatible with each other in several aspects:

First, both English and Chinese speakers in Experiment 1 consistently picked out sentences that involve temporal, spatial, participant, or thematic discontinuities as episode-initial sentences. Such identification is consistent in both the high- and mid-rate group data. This empirical finding suggests that temporal, spatial, participant, or thematic discontinuities are natural indicators of transitions between thematic units in narrative texts and as such they are perceived by language users. The majority of the identified sentences are characterized by these types of discontinuities.

Second, in both languages, the data of the high-rate groups, as compared with the data of the mid-rate groups, shows that both English- and Chinese-speaking people view episode as an intermediate unit with a certain scale in the sense that episode transitions are defined by major changes in temporal, spatial, or participant continuity in a certain part of a story. The identified sentences in the mid-rate group typically involve local changes in these dimensions and thematic discontinuity. A smaller degree of agreement shown on the identification of the transitional sentences in the mid-rate group implies that they represent less clear cases of episode transitions.

Third, as the intermediate unit of the narrative type of discourse, which is primarily an account of past events or actions, the episode seems to be perceived by language users mainly as a unit of events or actions. As we have already noticed, many of the identified sentences in the mid-rate groups are sentences that initiate a new theme (rather than a new participant) such as a description of scenery, one's inner feelings, a verbal exchange, an evaluation of a situation, an explanation of a phenomenon, and so on. The fact that these sentences end up in the mid-

rate groups suggests that language users generally prefer to treat such a unit as an embedded unit within an episode.

Fourth, in both English and Chinese groups, the comparison between the episode segmentations made by the participants in Experiment 1 of this study and the paragraph divisions made by the authors of the original stories indicate that to a certain extent the episode segmentations and the paragraph divisions share the same thematic grounds. The episode boundaries identified in this study are found to strongly correlate with the paragraph boundaries in the original stories at points of major changes in time, space, or participant. Such a correlation is weak at points where these changes are absent. This finding provides more support to the hypothesis of this study.

Finally, the analyses of the high-rate group sentences in both languages tell us that in these sentences major changes in time and space are typically encoded in preposed structures whereas major changes in participant tend to be encoded in a subject noun phrase. Although the preposed structures may be characterized differently within the overall syntactic framework of English and Chinese, the fact that these structures consistently occur at sentence-initial position is strong evidence for showing that they do have a discourse function to serve, i.e., to signal the beginning of a new episode. Since the subject noun phrase in both English and Chinese normally takes the sentence-initial position, it is readily used to serve the same function (unless a special sentence pattern is used). In serving this function, English and Chinese, two syntactically very different languages, behave in a rather similar fashion.

In the next two chapters, the oral data elicited in Experiments 2 and 3 will be presented and analyzed.

Notes

[1]All the Chinese examples cited in this thesis are presented in the form of Pinyin, a system of romanized spelling for transliterating Chinese. The same format of presentation and the same Chinese grammatical terms as used in Li and Thompson (1981) are adopted. In this format, the original Chinese sentence is presented first in Pinyin. Provided immediately below the words of the Chinese sentence are their literal English equivalents. This literal translation is followed by an idiomatic English translation of the whole Chinese sentence.

[2]According to Chao (1968), 50% of the utterances in Chinese are topic-comment type, which is in contrast to the preferred subject-predicate format of English and other European languages.

[3]The subordinate clause of cause is not included here mainly because of the finding of a recent quantitative study (Wang, 1999). Unlike many previous studies claiming that the subordinate clause of cause in Chinese is normally preposed before the main clause, Wang (1999) shows that in her recordings of conversations causal clauses occur more often after the main clause (66.1%) than before it (23.3%) (another 10.6% cases in her data are categorized as *fragments*).

[4]The quote here states the content of Tai's Principle of Temporal Sequence. This principle captures the fact that Chinese tends to encode what happens in reality according to their natural sequence. According to Tai's (1985) analysis, this principle applies to a whole array of word

order phenomena in Chinese including conjoined sentences and predicates, serial verb phrases, verb compounds, etc. In the view of the present study, this principle also accounts for the order of subordinate clause before main clause in Chinese.

Chapter 5

Identifying Episode Transitions in Oral Narratives

5.0. Introduction

As reported in Chapters 3 and 4, the hypothesis of this study has received support from the result of Experiment 1 in which written stories were used as stimuli. In order to find out how native speakers would encode episode transitions in their oral narratives, Experiments 2 and 3 were conducted. In this chapter the results of these two experiments will be reported.

Experiment 2 was a language production task in which 20 native speakers of English and 20 native speakers of Chinese read three picture books and told stories based on these books in their own languages. Their oral narratives were recorded and transcribed for analysis. Experiment 3 was another segmentation task in which the same participants of both language groups were asked to segment the three picture books into episodes after the recording of their stories. This experiment elicited the points of episode transitions in the three picture books corresponding to which episode-initial sentences in the oral narratives produced in Experiment 2 are identified and analyzed.

5.1. Identifying Episode Transitions in Picture Books

As mentioned above, both Experiments 2 and 3 were designed to investigate how episode transitions are encoded in oral narratives. The episode-initial pictures identified in Experiment 3 provided the target points against which examinations and analyses can be made of the

sentences corresponding to them in the oral stories produced in Experiment 2. Since this was the guiding motivation behind the design of the two experiments, the results of Experiment 3 were tabulated as the first step. Because the identified episode-initial pictures are regarded as adequately reflecting the participants' view about the episode transitions in the picture book stories, the sentences in the oral data from Experiment 2 that express the content of these pictures are considered their corresponding episode-initial sentences. The analysis of the oral data from Experiment 2 primarily consists in first finding the sentences that express the content of those identified episode-initial pictures and then evaluating these sentences in terms of whether they are characterized with the expression of major changes in time, space, or participant.

The results of picture identification from both English and Chinese speakers participating in Experiment 3 are provided below in Tables 5.1 through 5.6. Tables 5.1, 5.2, and 5.3 record the picture identifications made by the English speakers whereas Tables 5.4, 5.5, and 5.6 list the choices made by the Chinese speakers. In each table, the numbers listed under *Identified Episode-Initial Pictures* are the numbers of the pictures identified in each picture book. The numbers listed under *Sb* in the leftmost column are the numbers given to the subjects participating in the experiments. Each slash in a box of the table indicates the identification of a particular picture made by a particular subject. On the contrary, each blank box in the table stands for no identification of a particular picture. While T' stands for the total number of subjects that have identified a particular picture, $\%'$ turns that number into the percentage it makes up within the whole group of subjects. When a certain picture is identified by 70% or more of the subjects, the total number of the subjects

identifying this picture and the percentage it makes up within the whole group of subjects are highlighted in bold face. Such pictures are highlighted to show their importance as the most representative episode boundaries identified by the subjects. Sentences properly expressing the contents of these pictures in the oral narratives recorded in Experiment 2 are treated as the most representative episode-initial sentences.

Other information provided in the table includes the numbers listed under T^2 and $\%^2$ on the right-hand side of the table. Each number listed under T^2 is the total number of picture identifications made by one subject. Each number under $\%^2$ is the percentage of picture identifications made by one subject out of all the identified pictures in a picture book. When the specific number of picture identifications made by each subject and its percentage of the total number of the identified pictures are provided, it is easy for us to observe whether a subject makes too many or too few picture identifications. As we can see from the data of both language groups, no extreme cases are found in this regard.

Table 5.1

Episode-Initial Pictures Identified in *The Wedding of Brown Bear and White Bear* by English Speakers

	Identified Episode-Initial Pictures (Total Number = 22/42)																								T^2	$\%^2$
Sb	4	5	6	7	8	9	10	11	12	13	14	20	21	22	24	27	28	29	34	35	38	40				
1		/							/									/		/		/			5	23
2		/							/								/	/		/					5	23
3					/		/		/			/				/		/		/					7	32
4		/									/				/		/		/	/		/			7	32
5				/	/				/			/				/	/	/		/					8	36
6		/							/							/		/		/		/			6	27
7	/				/			/									/	/	/						6	27
8			/					/		/	/			/			/	/		/	/				9	41
9	/		/					/				/					/		/						6	27
10		/					/		/									/		/					5	23
11			/			/	/		/		/			/			/		/			/			9	41
12		/						/	/			/		/				/		/		/			8	36
13		/			/				/	/		/					/	/		/	/				9	41
14		/		/			/		/		/		/		/			/		/					9	41
15		/		/			/		/							/		/		/					7	32
16		/			/				/			/	/			/				/					7	32
17		/					/		/			/			/			/		/					7	32
18	/	/						/	/			/			/	/		/		/					9	41
19		/			/		/	/	/									/		/					7	32
20		/					/		/								/	/		/		/			7	32
T^1	3	14	3	3	6	1	8	6	16	2	4	8	2	3	4	6	9	16	4	17	2	6				
$\%^1$	15	70	15	15	30	5	40	30	80	10	20	40	10	15	20	30	45	80	20	85	10	30				

Sb = subjects in the group
T^1 = total number of subjects that have identified a particular picture
$\%^1$ = percentage of T^1 in the whole group of subjects
T^2 = total number of pictures identified by one subject
$\%^2$ = percentage of T^2 in the total number of pictures identified in a picture book by the whole group of subjects

Table 5.2

Episode-Initial Pictures Identified in *Queenie the Bantam* by English Speakers

	Identified Episode-Initial Pictures (Total Number = 18/47)																								T^2	$\%^2$
Sb	6	8	9	10	11	12	16	17	18	19	20	21	30	35	36	40	44	47								
1			/				/					/			/		/								5	28
2					/	/	/					/													4	22
3		/			/	/	/			/		/		/	/			/							9	50
4					/			/			/	/			/	/	/								7	39
5	/				/	/	/	/			/	/			/	/	/								10	56
6		/				/	/					/			/		/	/							7	39
7			/								/			/		/	/								5	28
8						/	/			/		/			/	/	/	/							9	50
9		/									/			/				/							4	22
10			/		/	/	/					/			/		/								6	33
11				/	/			/		/	/		/	/	/			/							9	50
12				/	/		/				/	/	/		/		/								8	44
13							/	/				/	/		/		/								6	33
14	/			/	/		/		/			/	/		/		/	/							10	56
15						/	/					/			/		/								5	28
16								/				/			/		/								4	22
17				/	/		/		/			/	/		/		/	/							9	50
18	/						/					/			/		/								5	28
19				/	/		/		/			/	/		/		/								8	44
20						/	/					/			/		/								5	28
T^1	3	3	3	5	10	8	15	5	3	3	6	17	6	4	17	4	16	7								
$\%^1$	15	15	15	25	50	40	75	25	15	15	30	85	30	20	85	20	80	35								

Sb = subjects in the group
T^1 = total number of subjects that have identified a particular picture
$\%^1$ = percentage of T^1 in the whole group of subjects
T^2 = total number of pictures identified by one subject
$\%^2$ = percentage of T^2 in the total number of pictures identified in a picture book by the whole group of subjects

Table 5.3

Episode-Initial Pictures Identified in *The Happy Dog* by English Speakers

	Identified Episode-Initial Pictures (Total Number = 24/57)																								
Sb	4	5	8	9	10	11	12	15	16	17	24	28	33	34	37	38	40	41	42	43	50	51	53	55	T^2	$\%^2$
1						/					/		/			/									4	17
2						/				/	/					/				/	/				6	25
3							/		/		/			/		/			/					/	7	29
4				/					/		/			/		/			/				/		7	29
5				/					/			/								/		/		/	6	25
6	/					/				/						/				/		/			6	25
7	/							/				/			/						/				5	21
8						/				/				/		/				/					5	21
9								/							/		/					/			4	17
10					/			/			/		/			/		/				/			7	29
11			/												/		/			/				/	5	21
12		/				/				/	/					/				/	/				7	29
13				/	/		/			/	/								/	/			/		8	33
14									/		/			/		/		/			/			/	7	29
15		/				/												/					/		4	17
16						/				/	/					/				/					5	21
17	/		/				/		/			/							/			/		/	8	33
18						/				/	/	/	/			/							/		7	29
19	/					/			/	/	/											/			6	25
20		/									/					/					/				5	21
T^1	4	3	2	3	2	9	3	3	6	8	12	4	3	4	3	12	2	3	4	8	5	6	4	5		
$\%^1$	20	15	10	15	10	45	15	15	30	40	60	20	15	20	15	60	10	15	20	40	25	30	20	25		

Sb = subjects in the group
T^1 = total number of subjects that have identified a particular picture
$\%^1$ = percentage of T^1 in the whole group of subjects
T^2 = total number of pictures identified by one subject
$\%^2$ = percentage of T^2 in the total number of pictures identified in a picture book by the whole group of subjects

Table 5.4

Episode-Initial Pictures Identified in *The Wedding of Brown and White Bear* by Chinese Speakers

	Identified Episode-Initial Pictures (Total Number = 20/42)																								T^2	$\%^2$
Sb	4	5	6	7	8	9	10	11	12	13	14	20	21	24	27	28	29	34	35	40						
1	/						/		/							/	/		/						6	30
2		/			/			/		/						/	/								6	30
3				/					/			/			/		/		/						6	30
4		/	/									/		/			/		/						6	30
5		/							/			/				/		/	/						6	30
6	/		/				/		/			/	/			/	/		/	/					10	50
7	/		/				/		/	/		/		/	/				/						9	45
8		/			/			/	/			/				/	/		/						8	40
9		/						/			/	/					/		/						6	30
10		/					/		/						/		/		/						6	30
11	/	/					/		/							/	/			/					7	35
12		/	/						/						/		/		/	/					7	35
13		/	/		/				/					/		/			/						7	35
14		/							/			/			/				/						5	25
15		/				/		/	/							/	/		/	/					8	40
16		/						/		/						/			/						5	25
17		/							/	/					/		/		/	/					7	35
18		/	/							/			/				/		/						6	30
19		/	/						/		/	/	/		/		/								8	40
20		/	/						/				/			/	/		/						7	35
T^1	4	16	8	1	3	1	5	5	15	5	2	9	4	3	7	10	15	1	17	5						
$\%^1$	20	80	40	5	15	5	25	25	75	25	10	45	20	15	35	50	75	5	85	25						

Sb = subjects in the group
T^1 = total number of subjects that have identified a particular picture
$\%^1$ = percentage of T^1 in the whole group of subjects
T^2 = total number of pictures identified by one subject
$\%^2$ = percentage of T^2 in the total number of pictures identified in a picture book by the whole group of subjects

Table 5.5

Episode-Initial Pictures Identified in *Queenie the Bantam* by Chinese Speakers

	Identified Episode-Initial Pictures (Total Number = 17/47)																									T	%[2]
Sb	6	8	9	10	11	12	16	17	18	20	21	30	35	36	40	44	47										
1					/		/				/			/		/										5	29
2					/		/	/			/	/				/										6	35
3				/			/				/	/			/	/										6	35
4					/		/				/			/		/										5	29
5		/				/	/				/		/	/		/										7	41
6				/			/	/			/			/		/										6	35
7					/	/	/		/		/			/		/	/									8	47
8						/	/				/			/		/										5	29
9					/		/			/	/			/		/										6	35
10							/		/		/		/	/		/										6	35
11				/			/			/	/		/	/		/	/									8	47
12					/						/			/		/	/									5	29
13		/				/	/	/			/			/		/										7	41
14				/			/	/				/		/		/										6	35
15						/	/	/			/			/		/										6	35
16							/	/		/		/		/		/	/									7	41
17	/		/			/	/							/	/	/										7	41
18					/						/			/		/										4	24
19					/		/				/			/		/										5	29
20					/	/	/				/			/		/										6	35
T	1	2	1	4	9	7	18	6	2	3	17	4	3	18	2	20	4										
%[1]	5	10	5	20	45	35	90	30	10	15	85	20	15	90	10	100	20										

Sb = subjects in the group
T^1 = total number of subjects that have identified a particular picture
$\%^1$ = percentage of T^1 in the whole group of subjects
T^2 = total number of pictures identified by one subject
$\%^2$ = percentage of T^2 in the total number of pictures identified in a picture book by the whole group of subjects

Table 5.6

Episode-Initial Pictures Identified in *The Happy Dog* by Chinese Speakers

Sb	Identified Episode-Initial Pictures (Total Number = 24/57)																								T^2	$\%^2$
	4	5	6	8	9	10	11	12	15	16	17	23	24	28	33	37	38	40	41	42	43	50	51	55		
1							/				/							/					/		4	17
2							/				/		/				/								4	17
3						/					/						/					/			4	17
4							/				/						/			/					4	17
5							/		/			/									/				5	21
6				/				/	/						/		/		/						6	25
7				/			/		/				/				/			/			/		7	29
8		/						/			/		/			/				/		/		/	8	33
9								/		/							/				/				4	17
10		/					/		/			/		/			/		/						7	29
11				/	/				/			/		/		/			/						7	29
12						/	/				/		/		/		/						/		7	29
13	/				/		/						/				/					/			6	25
14						/	/				/		/				/					/			6	25
15				/						/			/		/						/		/		6	25
16	/	/											/							/			/		5	21
17		/								/			/			/						/			5	21
18										/					/		/		/						4	17
19			/										/				/				/		/	/	6	25
20				/					/							/						/		/	5	21
T^1	2	4	1	5	2	3	9	3	6	4	7	3	10	2	4	4	12	1	4	4	4	6	6	3		
$\%^1$	10	20	5	25	10	15	45	15	30	20	35	15	50	10	20	20	60	5	20	20	20	30	30	15		

Sb = subjects in the group
T^1 = total number of subjects that have identified a particular picture
$\%^1$ = percentage of T^1 in the whole group of subjects
T^2 = total number of pictures identified by one subject
$\%^2$ = percentage of T^2 in the total number of pictures identified in a picture book by the whole group of subjects

Although Experiment 3 was designed primarily to elicit the target points so that examinations and analyses can be made of the sentences corresponding to them in the oral stories produced in Experiment 2, its results per se as shown above provide some important data revealing English and Chinese speakers' perception of episode transitions in a non-linguistic medium.

First, if we compare the overall numbers of pictures identified by English and Chinese speakers, we find that English speakers identified 64 pictures whereas Chinese speakers identified 61. There were only 7 pictures in total whose identification is not shared by both language groups. The discrepancy between the two language groups is really small in terms of the overall situation of picture identification. This finding tells us that the factors that make certain pictures identifiable as episode-initial are to a great extent shared between English and Chinese speakers.

Second, as mentioned in Chapter 2, the three picture books used as stimuli in Experiment 3 are not the same with regards to the elements of time, space, or participant in the structuring of their stories. In *The Wedding of Brown Bear and White Bear* and *Queenie the Bantam*, different participants are involved and their activities take place in different environments and at different times. In *The Happy Dog*, however, a personified dog is the only participant throughout the two short stories and his activities take place in two time spans and at two locations without major discontinuities in either aspect. According to the hypothesis of this study, episode transitions are more clear-cut at points of major changes in time, space, or participant and are less so when there is a lack of such changes. The result of episode segmentation on written narratives has supported this hypothesis. Since the elements of time,

space, or participant are also integral parts of the stories of the picture books, this hypothesis should not only apply to the episode segmentation task on written narratives but also to the task of identifying episode-initial pictures. If the hypothesis is viable, the subjects in Experiment 3 should identify the most representative cases of episode transitions in the first two picture books but not in the third one. Furthermore, as the results of the segmentation task performed by English and Chinese speakers are fairly compatible in identifying episode transitions characterized by major changes in time, space, or participant, we can anticipate the same compatibility in their identifying episode-initial pictures.

In finding out if the above reasoning is true of the data of the picture identification task, a detailed comparison is conducted of the picture identifications made in each picture book by English and Chinese speakers. The hypothesis is that there would be no differences in their identifications. In Tables 5.7, 5.8, and 5.9 provided below, the number of identifications made of a certain picture by the English speakers is paired with the number of identifications made of the same picture by the Chinese speakers in the three picture books respectively. The numbers of identifications made of the pictures identified by 70% or more of the subjects are highlighted in bold face so that where they occur becomes more noticeable. Used as an indicator of compatibility, a *t*-test is conducted on the numbers of picture identifications made by English and Chinese speakers relating to the same pictures in each picture book.

Table 5.7

Episode-Initial Pictures Identified by English and Chinese Speakers

In *The Wedding of Brown Bear and White Bear*

Case	Episode-Initial Picture	English Group Totals	Chinese Group Totals
1	4	3	4
2	5	**14**	**16**
3	6	3	8
4	7	3	1
5	8	6	3
6	9	1	1
7	10	8	5
8	11	6	5
9	12	**16**	**15**
10	13	2	5
11	14	4	2
12	20	8	9
13	21	2	4
14	24	4	3
15	27	6	7
16	28	9	10
17	29	**16**	**15**
18	34	4	1
19	35	**17**	**17**
20	40	6	5

Table 5.8

Episode-Initial Pictures Identified by English and Chinese Speakers In *Queenie the Bantam*

Case	Episode-Initial Picture	English Group Totals	Chinese Group Totals
1	6	3	1
2	8	3	2
3	9	3	1
4	10	5	4
5	11	10	9
6	12	8	7
7	16	**15**	**18**
8	17	5	6
9	18	3	2
10	20	6	3
11	21	**17**	**17**
12	30	6	4
13	35	4	3
14	36	**17**	**18**
15	40	4	2
16	44	**16**	**20**
17	47	7	4

Table 5.9

Episode-Initial Pictures Identified by English and Chinese Speakers In *The Happy Dog*

Case	Episode-Initial Picture	English Group Totals	Chinese Group Totals
1	4	4	2
2	5	3	4
3	8	2	5
4	9	3	2
5	10	2	3
6	11	9	9
7	12	3	3
8	15	3	6
9	16	6	4
10	17	9	7
11	24	12	10
12	28	4	2
13	33	3	4
14	37	3	4
15	38	12	12
16	40	2	1
17	41	3	4
18	42	4	4
19	43	8	4
20	50	5	6
21	51	6	6
22	55	5	3

The results of the picture identification task presented in Tables 5.7, 5.8, and 5.9 help us to see more clearly the choices made by English and Chinese speakers from a comparative point of view. As predicted, the episode-initial pictures identified by 70% or more of the subjects in the two language groups are all found in *The Wedding of Brown Bear and*

White Bear and *Queenie the Bantam* but not in *The Happy Dog*. Since it is the former but not the latter that involve different participants doing things at different locations and different times, this finding proves that episode transitions identified in picture books are also characterized by major changes in time, space, or participant. Furthermore, both English speakers and Chinese speakers choose the same 8 pictures with 70% or more agreement.

The results of *t*-tests on the picture identifications in the three picture books between the two language groups are also revealing. Presented in Tables 5.10, 5.11, and 5.12 are these results corresponding to the raw data presented in Tables 5.7, 5.8, and 5.9 respectively:

Table 5.10

T-Test Results for Picture Identifications in *The Wedding of Brown Bear and White Bear*

Group	*n*	*Mean*	*s*	*t value*	*df*	*p*
English	20	6.90	5.04	.0616	38	ns
Chinese	20	6.80	5.24			

Table 5.11

T-Test Results for Picture Identifications in *Queenie the Bantam*

Group	*n*	*Mean*	*s*	*t value*	*df*	*p*
English	17	7.76	5.32	.3135	32	ns
Chinese	17	7.12	6.72			

Table 5.12

T-Test Results for Picture Identifications in *The Happy Dog*

Group	*n*	*Mean*	*s*	*t value*	*df*	*p*
English	22	5.05	3.08	.3103	42	ns
Chinese	22	4.77	2.47			

The non-significant *t* values for the compared data in all three picture books indicate that the null hypothesis predicting the compatible performance in picture identification between the two language groups is not rejected. This high compatibility in picture identification between the English and Chinese speakers and their sharing of the same pictures as the most representative cases can be regarded as strong evidence suggesting that the speakers of the two languages not only have more or less the same conception of episode transitions in general, but that they also strongly agree on the prototypical cases. The conception of episode transitions is clearly not language-specific but shared between English and Chinese speakers.

5.2. Identifying Episode-Initial Sentences in the Oral Data

Since the same participants who produced the oral data in Experiment 2 also made the identifications of episode-initial pictures, in analyzing the oral data I mainly focus on the participants' verbal expression of the contents of these episode-initial pictures. In other words, if a participant has identified a picture as an episode-initial picture, I would look in his/her oral story for the verbal expression of this picture. If the content of the picture is clearly expressed (in one of the sentence forms to be

specified below), this verbal expression would be listed as the corresponding episode-initial sentence in the oral data.

So, based on the identified pictures I look for the corresponding sentences in the oral data. In so doing, I find it necessary to deal with 5 distinct situations in identifying the sentences that represent the corresponding pictures:

Situation 1: A participant identifies a particular picture as an episode-initial picture in Experiment 3. The same participant also clearly expresses the content of this picture by using an independent sentence in his/her story. Take the following picture from *The Wedding of Brown Bear and White Bear*[1] as an example (Beck, 1990, p. 17):

This picture shows that Brown Bear and White Bear are skiing together in the mountains. They are obviously enjoying themselves very much. Sixteen participants identified this picture as an episode-initial picture. Some of them used the following sentences to express the content of this picture:

5.1) So, the next morning, they met with their skis.

5.2) So, the next morning at 8 o'clock, they met and they went skiing.

5.3) And then after that they go cross-country skiing which Brown Bear is a lot better at than skating.

5.4) And after that they spent a lot of time together skiing and mountain-climbing and watching shooting stars.

5.5) The next day, they decide to go skiing together.

5.6) After that day Brown Bear and White Bear started doing stuff together all the time.

As we can see, these examples clearly represent what the picture indicates even though their perspectives may be somewhat different. For this reason, all these sentences are listed as the verbal counterparts of this picture.

Situation 2: A participant identifies a picture as an episode-initial picture. The same participant also clearly expresses the content of this picture by using not a whole sentence but part of a complex sentence or compound sentence. To illustrate this, let us have a look at the following picture from *The Wedding of Brown Bear and White Bear*[2] (Beck, 1990, p. 9):

In this picture Brown Bear is getting up from his bed in the morning (followed by a picture in which he is chopping some wood). Cited below are some of the sentences corresponding to, or perhaps more exactly partially corresponding to, the picture:

5.7) So, when he gets up in the morning, he decides that he's gonna try skating as well.

5.8) When Brown Bear gets up in the morning, he goes out and does his daily chores of cutting wood.

5.9) In the morning he woke up and decided to go and chop some wood in the forest.

5.10) Next morning he woke up and realized that he couldn't live without her.

In sentences (5.7) and (5.8), the content of the picture is encoded in the preposed subordinate clauses, whereas in (5.9) and (5.10), it is the first part of a compound sentence that mentions the content of the picture. In both cases the part of the sentence expressing the content of the picture is placed at sentence-initial positions. By representing the content of the episode-initial picture at the very beginning of a complex or compound sentence the participant does start an account of a new episode from this picture. For this reason all the sentences cited above are regarded as legitimate episode-initial sentences corresponding to the identified episode-initial picture.

Situation 3: A participant identifies a picture as an episode-initial picture, but the verbal expression corresponding to the picture used by the participant is not a straightforward description of what the picture shows. The participant sometimes describes the characters' mental

activity that leads to what they actually do in the picture. To illustrate such cases, another picture from *Queenie the Bantam*[3] (Graham, 1997, p. 6) is provided below:

In this picture the father is holding a box that contains *Queenie* the hen and the mother is holding the baby. They are about to leave their house. The dog is already half way through the door specifically made for him. In telling this part of the story, some participants in the experiment focus on what the characters are obviously doing in the picture, as the following two examples show:

5.11) So the next day we wrapped up the chicken in the blanket we brought it in, put it in a box and headed outdoor.

5.12) So they bundled it all up and left for the country.

However, other participants give descriptions that less directly reflect what the characters are actually doing. They describe the characters' mental activity that leads to what they do in the picture. Some of such descriptions are as follows:

5.13) Eventually they decided Queenie would be happier in the country on the farm.

5.14) One day they realized that they should find where the hen came from.

5.15) The family figures well our house is not a good place for a chicken. So they pack up Queenie in a box and head out for a farm.

5.16) One day, they decided that she had to go back to her real home, to the farm.

Because such sentences do start a new episode by being closely related to the identified picture, they are regarded as episode-initial sentences corresponding to the identified picture.

Situation 4: A participant identifies a picture as an episode-initial picture. In telling the story, however, the participant mentions the content of the picture not as the initial part but as the ensuing part of a compound sentence. Provided below are two such examples in relation to a picture in *The Happy Dog*[4] (Tanaka, 1983, p. 15):

In this picture the happy dog is taking a shower in the heavy rain (followed by another picture showing he is shaking water off his body). Two participants who identify the picture as an episode-initial picture

mention the content of the picture only at the very end of a compound sentence:

5.17) And he hangs his school bag and his umbrella on the tree and kind of takes a shower in the rain.

5.18) So he walks to a tree, sits down under some shelter, hangs all his stuff up, and takes just a nice normal dog shower in the rain.

As the two examples show, the verbal expression of the content of the picture does not indicate in any way the beginning of a new episode. They are more like the endings of an episode. Because of this, both cases are not counted as the rightful episode-initial sentences corresponding to the identified picture.

Situation 5: A participant identifies a picture as an episode-initial picture but somehow fails to mention its content at all in his/her story. In this situation no verbal expression of the picture is recorded.

So, using the episode-initial pictures as reference points, I identified their corresponding episode-initial sentences. These sentences will be presented and analyzed in the next chapter.

5.3. Summary

As we can see from the analysis made in this chapter, the performance of the two language groups in the task of picture identification in Experiment 3 is highly compatible in terms of both the overall choices they make and specific choices they make of the most representative cases. The most representative cases are characterized by major changes in time, space, or participant. This finding strongly suggests that episode transitions may be identified through a non-linguistic medium and they

are more or less equally identifiable to both English and Chinese speakers. Since picture books (in comparison with written narratives) are a more direct reflection of our living reality, we have reason to believe that the conception of episode transitions held by language users is cognitively based.

In the next chapter, I will focus attention on how the identified episode-initial sentences in both English and Chinese encode the episode transitions that are characterized by major changes in time, space, or participant. Because the sentences to be analyzed are from the oral data, the result of the analysis will complement the finding concerning their equivalents in the written narratives.

Notes

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[2]Reprinted with the permission of Writers House. Published by Little, Brown and Co., Boston, MA. Copyright © 1990 Martine Beck.

[3]Reprinted with the permission of Walker Books Ltd., London Published by Candlewick Press, Inc., Cambridge, MA. Copyright © 1999 Bob Graham.

[4]Reprinted with the permission of Margaret K. McElderry Books, an imprint of Simon & Schuster Children's Publishing Division from *The Happy Dog* by Hideyuki Tanaka. Copyright © 1983 Hideyuki Tanaka.

Chapter 6

Episode Transitions Encoded in Oral Narratives

6.0. Introduction

The episode-initial sentences in the oral data are identified by following the procedures described in the last chapter. In this chapter these sentences will be presented and analyzed in the two language groups. A summary of the oral data as a whole will also be made from an integrated point of view.

6.1. Episode-Initial Sentences Identified in the Oral Narratives

Tables 6.1 through 6.6 given below record the numbers of these sentences used by English and Chinese speakers respectively. While Tables 6.1, 6.2, and 6.3 provide records of the English sentences, Tables 6.4, 6.5, and 6.6 list the uses of the Chinese sentences. In each table, the numbers listed under *Episode-Initial Sentences Corresponding to the Identified Pictures* are the numbers of the sentences recognized as the verbal expression of the pictures identified in Experiment 3. The numbers listed under *Sb* are the numbers given to the subjects participating in the experiment. In each table, a slash placed in a box indicates the recognition of an episode-initial sentence as the verbal expression of the picture numbered at the very top of the column. A blank box means that no sentence is recognized for the corresponding picture. A zero stands for a case in which the picture has been identified by the subject but no corresponding sentence can be recognized in the oral data (as in Situations 4 and 5 discussed in Chapter 5).

The information recorded in each table is summarized in several categories. T^1 summarizes the total number of subjects that have properly expressed the content of a particular picture whereas $\%^1$ turns that number into the percentage it makes up in the whole group of subjects. When the content of a picture is properly expressed by 70% or more of the subjects, the number of the subjects and the percentage it makes up within the whole group of subjects are highlighted in bold face. The sentences identified in this category are treated as the most representative episode-initial sentences in the oral narratives. Each number listed under T^2 is the total number of pictures that have been properly expressed by one subject. Each number under $\%^2$ is the percentage made up by the number of pictures properly expressed by one subject in the total number of pictures identified in a picture book by the whole group of subjects. The specific number of pictures that have been properly expressed by each subject and the percentage made up by this number in the total number of pictures identified in a picture book enable us to observe whether a subject properly and consistently encodes an episode-initial picture he/she identifies. As we can see from the numbers provided in these two categories, all the subjects of both language groups do consistently and clearly encode the episode-initial pictures they identify in most cases. Only one English-speaking subject (No. 8) has failed to properly express the contents of four pictures he has identified in *Queenie the Bantam*. Provided on the following pages are Tables 6.1 through 6.6:

Table 6.1

English Episode-Initial Sentences Corresponding to the Identified Pictures in *The Wedding of Brown Bear and White Bear*

Sb	Episode-Initial Sentences Corresponding to the Identified Pictures (Total Number of Pictures = 22/42)																								T^2	$\%^2$
	4	5	6	7	8	9	10	11	12	13	14	20	21	22	24	27	28	29	34	35	38	40				
1		/							/									/		/		/			5	23
2		/							/								/	/		/					5	23
3					/		/		/			/				/		/		/					7	32
4		/									/				/		/		/	/		/			7	32
5				/	/				/			/				/	/	0		/					7	32
6		/							/							/		/		/		/			6	27
7	/				/			/									/	/	/						6	27
8			/					/		0	/			/			/	/		/	/				8	36
9	/		/					/				/					/		/						6	27
10		/					/		/									/		/					5	23
11			/			/	/		/		/			/			/		/			/			9	41
12		/						/	/			/		/				/		/		/			8	36
13		/			/				/	/		/					/	/		/	/				9	41
14		/		0			0		/		0		/		/			/		/					6	27
15		/		/			/		/							/		/		/					7	32
16		/			/				/			/	/			/				/					7	32
17		/					/		/			/			/			/		/					7	32
18	/	/						/	/			/			/	/		/		/					9	41
19		/			/		/	/	/									/		/					7	32
20		/					0		/								/	0		/		/			5	27
T^1	3	14	3	2	6	1	6	6	16	1	3	8	2	3	4	6	9	14	4	17	2	6				
$\%^1$	15	70	15	10	30	5	30	30	80	5	15	40	10	15	20	30	45	70	20	85	10	30				

Sb = subjects in the group
T^1 = total number of subjects that have properly expressed the content of a particular picture
$\%^1$ = percentage of T^1 in the whole group of subjects
T^2 = total number of pictures that have been properly expressed by one subject
$\%^2$ = percentage of T^2 in the total number of pictures identified in a picture book by the whole group of subjects

Table 6.2

English Episode-Initial Sentences Corresponding to the Identified Pictures in *Queenie the Bantam*

Sb	Episode-Initial Sentences Corresponding to the Identified Pictures (Total Number of Pictures = 18/47)																								T^2	$\%^2$
	6	8	9	10	11	12	16	17	18	19	20	21	30	35	36	40	44	47								
1			0				/					/			/		/								4	22
2					/	/	/					/													4	22
3		0			/	/	/			/		/		/	/			/							8	44
4					/			0			/	/			/	/	/								6	33
5	/				0	/	/	0			/	/			/	/	/								8	44
6		/				/	/					/			/		/	/							7	39
7			/								/			0		/	/								4	22
8		0				0	/			0		/			/	0	/	/							5	28
9			/								/			/				/							4	22
10					/	/	/					/			/		/								6	33
11				0	/			0		/	/		/	0	/			/								6	33
12				/	/		/				/	/	0		/		/								7	39
13							/	/				/	0		/		/								5	28
14	/			/	/		/		0			/	0		/		/	/							8	44
15						0	/					/			/		/								4	22
16								/				/			/		/								4	22
17				/	/		/		/			/	/		/		/	/							9	50
18	/						/					/			/		/								5	28
19				0	/		/		/			/	/		/		/								6	33
20						/	/					/			/		/								5	28
T^1	3	1	2	3	9	6	15	2	2	2	6	17	3	2	17	3	16	7								
$\%^1$	15	5	10	15	45	30	75	10	10	10	30	85	15	10	85	15	80	35								

Sb = subjects in the group
T^1 = total number of subjects that have properly expressed the content of a particular picture
$\%^1$ = percentage of T^1 in the whole group of subjects
T^2 = total number of pictures that have been properly expressed by one subject
$\%^2$ = percentage of T^2 in the total number of pictures identified in a picture book by the whole group of subjects

Table 6.3

English Episode-Initial Sentences Corresponding to the Identified Pictures in *The Happy Dog*

Sb	Episode-Initial Sentences Corresponding to the Identified Pictures (Total Number of Pictures = 24/57)																								T^2	$\%^2$
	4	5	8	9	10	11	12	15	16	17	24	28	33	34	37	38	40	41	42	43	50	51	53	55		
1						/					/		/			0									3	13
2						/				/	/					/				/	0				5	21
3							/		/		/			/		/			/					/	7	29
4				/					/		/			/		/			/				0		6	25
5				/				/	/			0								/		/		/	6	25
6	0					/				/						/				/		0			4	17
7	/											/			/						/				4	17
8						/				/				/		/				/					5	21
9								/							/		/					/			4	17
10					/			/			/		/			/		/				/			7	29
11			0												/		/			/					3	13
12		/				/				/	/					/				/	/				7	29
13				/	/		/			/	/								/	/			/		8	33
14									/		/			/		/		/			/			0	6	25
15		/				/												/					0		3	13
16						/				/	/					/				/					5	21
17	/		/				/		/			/							/			/		/	8	33
18						/				/	/	0	/			/							/		6	25
19	/					/			/	/	/											/			6	25
20		0									/					/					/				3	13
T^1	3	2	1	3	2	9	3	3	6	8	12	2	3	4	3	11	2	3	4	8	4	5	2	3		
$\%^1$	15	10	5	15	10	45	15	15	30	40	60	10	15	20	15	55	10	15	20	40	20	25	10	15		

Sb = subjects in the group
T^1 = total number of subjects that have properly expressed the content of a particular picture
$\%^1$ = percentage of T^1 in the whole group of subjects
T^2 = total number of pictures that have been properly expressed by one subject
$\%^2$ = percentage of T^2 in the total number of pictures identified in a picture book by the whole group of subjects

Table 6.4

Chinese Episode-Initial Sentences Corresponding to the Identified Pictures in *The Wedding of Brown Bear and White Bear*

	Episode-Initial Sentences Corresponding to the Identified Pictures (Total Number of Pictures = 20/42)																								T^2	$\%^2$
Sb	4	5	6	7	8	9	10	11	12	13	14	20	21	24	27	28	29	34	35	40						
1	0						/		/							0	/		/						4	20
2		/			/			/		/						/	/								6	30
3				/					/			/			/		/		/						6	30
4		/	/									/		/			/		/						6	30
5		/							/			/				/		/	/						6	30
6	0		/				/		/			/	/			/	/		/	0					8	40
7	/		/				/		/	0		/		/	/				/						8	40
8		/			0			/	/			/				/	/		/						7	35
9		/						/			0	/					/		/						5	25
10		/					/		/						/		/		/						6	30
11	/	/					0		/							/	/			/					6	30
12		/	/						/						0		/		/	/					6	30
13		/	/		0				/					/		/			/						6	30
14		/							/			/			/				/						5	25
15		/				/		/	/							/	/		/	/					8	40
16		/						/		/						/			/						5	25
17		/							/	0					0		/		/	/					5	25
18		/	/							0			/				/		/						5	25
19		/	/						/		/	/	/		/		/								8	40
20		0	0						/				/			/	/		/						5	25
T^1	2	15	7	1	1	1	4	5	15	2	1	9	4	3	5	9	15	1	17	4						
$\%^1$	10	75	35	5	5	5	20	25	75	10	5	45	20	15	25	45	75	5	85	20						

Sb = subjects in the group
T^1 = total number of subjects that have properly expressed the content of a particular picture
$\%^1$ = percentage of T^1 in the whole group of subjects
T^2 = total number of pictures that have been properly expressed by one subject
$\%^2$ = percentage of T^2 in the total number of pictures identified in a picture book by the whole group of subjects

Table 6.5

Chinese Episode-Initial Sentences Corresponding to the Identified Pictures in *Queenie the Bantam*

Sb	Episode-Initial Sentences Corresponding to the Identified Pictures (Total Number of Pictures = 17/47)																		T	$\%^2$
	6	8	9	10	11	12	16	17	18	20	21	30	35	36	40	44	47			
1					0		/				/			/		/			4	24
2					/		/	0			/	/				/			5	29
3				0			/				/	/			/	/			5	29
4					/		/				/			/		/			5	29
5		/				/	/				/		0	/		/			6	35
6				/			/	/			/			/		/			6	35
7					/	/	/		/		/			/		/	0		7	41
8						/	/				/			0		/			4	24
9					/		/			/	/			/		/			6	35
10							0		/		/		0	0		/			3	18
11				0			/			/	/		0	/		/	/		6	35
12					0						/			0		/	/		3	18
13		0				0	/	0			/			/		/			4	24
14				0			/	0				/		/		/			4	24
15						/	/	/			/			0		/			5	29
16							/	/		/		0		/		/	/		6	35
17	0		/			/	/							/	0	/			5	29
18					0						/			/		/			3	18
19					/		/				/			/		/			5	29
20					/	0	/				/			/		/			5	29
T	0	1	1	1	6	5	17	3	2	3	17	3	0	14	1	20	3			
$\%^1$	0	5	5	5	30	25	85	15	10	15	85	15	0	70	5	100	15			

Sb = subjects in the group
T^1 = total number of subjects that have properly expressed the content of a particular picture
$\%^1$ = percentage of T^1 in the whole group of subjects
T^2 = total number of pictures that have been properly expressed by one subject
$\%^2$ = percentage of T^2 in the total number of pictures identified in a picture book by the whole group of subjects

Table 6.6

Chinese Episode-Initial Sentences Corresponding to the Identified Pictures in *The Happy Dog*

Sb	Episode-Initial Sentences Corresponding to the Identified Pictures (Total Number of Pictures = 24/57)																								T^2	$\%^2$
	4	5	6	8	9	10	11	12	15	16	17	23	24	28	33	37	38	40	41	42	43	50	51	55		
1							/				/							/					0		3	13
2							/				/		0				/								3	13
3						/					/						/					/			4	17
4							/				/						/			/					4	17
5							/		/			/									/				4	17
6				/				/	/						/		/		/						6	25
7				/			/		/				/				/			/			/		7	29
8		0						/			0		/			0				/		/		/	5	21
9								/		/							/				/				4	17
10		0					/		/			/		/			/		/						6	25
11				/	/				0			/		/		/			/						6	25
12						/	/				/		/		/		/						0		6	25
13	0				0		/						/				/					/			4	17
14						/	/				/		/				/					/			6	25
15				0						/			/		/						/		/		5	21
16	0	/											/							/			/		4	17
17		0								/			/			/						0			3	13
18										/					/		/		/						4	17
19			/										0				/				/		/	/	5	21
20				/					/							/						/		/	5	21
T^1	0	1	1	4	1	3	9	3	5	4	6	3	8	2	4	3	12	1	4	4	4	5	4	3		
$\%^1$	0	5	5	20	5	15	45	15	25	20	30	15	40	10	20	15	60	5	20	20	20	25	20	15		

Sb = subjects in the group
T^1 = total number of subjects that have properly expressed the content of a particular picture
$\%^1$ = percentage of T^1 in the whole group of subjects
T^2 = total number of pictures that have been properly expressed by one subject
$\%^2$ = percentage of T^2 in the total number of pictures identified in a picture book by the whole group of subjects

From the records in Tables 6.1 through 6.6 we can see that the subjects in both language groups in general clearly encode the episode-initial pictures they picked. This shows that the identification of episode-initial pictures in the non-linguistic medium is well in line with their verbal expression. The zeroes that indicate the mismatches between the verbal expression and the identified picture are relatively few in number and they are mostly associated with low-rate cases.

In the last chapter, a comparison was conducted of the picture identifications made in each picture book by English and Chinese speakers. The high compatibility in their choices indicates that their perception of episode transitions in such a non-linguistic medium as a picture book is shared despite their different linguistic background. Now that the episode-initial sentences corresponding to the identified pictures have been identified, it would be interesting to find out if the encoding of the identified pictures by the two language groups is also similar. The hypothesis is that there would be no difference in encoding episode transitions between the two language groups.

In Tables 6.7, 6.8, and 6.9 below, the numbers of episode-initial sentences in the two languages corresponding to the identified episode-initial pictures in each picture book are compared, using *t*-tests on the paired numbers as the indicator of compatibility.

Table 6.7

English and Chinese Episode-Initial Sentences Corresponding to the Identified Pictures in *The Wedding of Brown Bear and White Bear*

Case	Picture	English Episode-Initial Picture Sentence Correspondence	Chinese Episode-Initial Picture Sentence Correspondence
1	4	3	2
2	5	14	15
3	6	3	7
4	7	2	1
5	8	6	1
6	9	1	1
7	10	6	4
8	11	6	5
9	12	16	15
10	13	1	2
11	14	3	1
12	20	8	9
13	21	2	4
14	24	4	3
15	27	6	5
16	28	9	9
17	29	14	15
18	34	4	1
19	35	17	17
20	40	6	4

Table 6.8

English and Chinese Episode-Initial Sentences Corresponding to the Identified Pictures in *Queenie the Bantam*

Case	Picture	English Episode-Initial Picture Sentence Correspondence	Chinese Episode-Initial Picture Sentence Correspondence
1	8	1	1
2	9	2	1
3	10	3	1
4	11	9	6
5	12	6	5
6	16	15	17
7	17	2	3
8	18	2	2
9	20	6	3
10	21	17	17
11	30	3	3
12	36	17	14
13	40	3	1
14	44	16	20
15	47	7	3

Table 6.9

English and Chinese Episode-Initial Sentences Corresponding to the Identified Pictures in *The Happy Dog*

Case	Picture	English Episode-Initial Picture Sentence Correspondence	Chinese Episode-Initial Picture Sentence Correspondence
1	5	2	1
2	8	1	4
3	9	3	1
4	10	2	3
5	11	9	9
6	12	3	3
7	15	3	5
8	16	6	4
9	17	8	6
10	24	12	8
11	28	2	2
12	33	3	4
13	37	3	3
14	38	4	3
15	40	2	1
16	41	3	4
17	42	4	4
18	43	8	4
19	50	4	5
20	51	5	4
21	55	3	3

The results of *t*-tests on the encoding of the identified pictures in each picture book between the two language groups are presented in Tables 6.10, 6.11, and 6.12:

Table 6.10

T-Test Results for Encoding the Identified Pictures in *The Wedding of Brown Bear and White Bear*

Group	*n*	*Mean*	*s*	*t value*	*df*	*p*
English	19	6.55	4.99	.3028	38	ns
Chinese	19	6.05	5.44			

Table 6.11

T-Test Results for Encoding the Identified Pictures in *Queenie the Bantam*

Group	*n*	*Mean*	*s*	*t value*	*df*	*p*
English	15	7.27	6.03	.3403	28	ns
Chinese	15	6.47	6.83			

Table 6.12

T-Test Results for Encoding the Identified Pictures in *The Happy Dog*

Group	*n*	*Mean*	*s*	*t value*	*df*	*p*
English	21	4.29	2.80	.5683	40	ns
Chinese	21	3.86	2.03			

As shown above, the *t* values for the compared data in all three picture books are non-significant. The null hypothesis predicting the compatible performance in encoding episode transitions between the two language groups is thus supported. Since the encodings of the identified pictures in the two languages are both mainly embodied in preposed structures of episode-initial sentences, the similar performance of the two language groups would also mean that even though the speakers of the two languages have very different syntactic resources at their command, they nevertheless use very analogous structures to code episode transitions.

6.2. Putting Identified Sentences in Order

The episode-initial sentences in the oral data are identified in correspondence to the pictures identified in Experiment 3. However, even though a number of sentences may be identified as corresponding to a specific picture, they may not be exactly the same in content and/or structure. To illustrate this phenomenon, several sentences that have been used to express the content of a picture in *Queenie the Bantam* are given below as examples (In this picture, Queenie the hen jumps down from her perch on the farm and leaves):

6.1) But ***Queenie*** didn't want to stay.

6.2) But ***Queenie*** realized she didn't give the family a gift for saving her.

6.3) But ***this bird, she*** just doesn't like it out there.

6.4) ***Later that night*** our chicken escaped.

6.5) ***Meanwhile,*** the chicken decides she wants to go back to the city with the family.

6.6) ***At the farm***, Queenie decided she wanted to leave.

Although the sentences listed above are all related to the same picture, they are not quite the same in sentence content and/or structure, particularly the sentence-initial structure. Leaving the conjunction *but*[1] aside, we notice that sentences (6.1), (6.2), and (6.3) each start with a new participant encoded as the subject noun phrase of the sentence. While in sentences (6.4) and (6.5) it is a marked adverb phrase of time that provides the new setting for the following sequence of events, in sentence (6.6) the same function is performed by a marked prepositional phrase of place.

Similar cases are also common with sentences expressing the contents of many other pictures.

Since the sentences corresponding to the same picture may be the same in content and/or structure, it is clearly undesirable to characterize these sentences in relation to each specific picture. The way that has been adopted to deal with this situation in this study is to pool together all the sentences into two major groups according to their identification rates. In more specific terms, based on Tables 6.1 through 6.6, which provide the numbers of episode-initial sentences that have been identified in correspondence to the identified pictures recorded in Tables 5.1 through 5.6, all the episode-initial sentences used by 70% or more of the subjects are pooled together as the high-rate group and all those used by 40%-69% of the subjects as the mid-rate group. As we can see from Tables 6.1 through 6.6, the pooled high-rate group sentences in English and Chinese respectively are identified in correspondence to the same 8 pictures in *The Wedding of Brown Bear and White Bear* and *Queenie the Bantam* only. None of the identified sentences in the story of *The Happy Dog*

reach the required agreement rates of the high-rate group. This is in line with the finding reported in Chapter 5 that none of the pictures in *The Happy Dog* has been identified by 70% or more of the subjects. The mid-rate group sentences, however, are found in all three stories. After both high- and mid-rate groups of sentences are established, they are analyzed in terms of whether they contain information about changes in the three discourse elements deemed as crucial in the present study. The high-rate group sentences are analyzed as the most representative episode-initial sentences.

6.3. High-Rate Group Sentences in the English Oral Data

The sentences in the English high-rate group are used as verbal expressions of 8 pictures in *The Wedding of Brown Bear and White Bear* and *Queenie the Bantam*. There are 126 sentences pooled together to form this group. In analyzing these sentences, my attention is mainly focused on their sentence-initial structures, which are examined one by one in terms of whether they perform the functions of indicating temporal, spatial, or participant discontinuities. Some typical examples of these structures are provided in the following sentences:

6.7) ***Later that night*** our chicken escaped.

6.8) ***Meanwhile*** the mother looks pregnant and they're decorating a nursery room for a baby.

6.9) ***On his way,*** he passes by a pond where there's lots and lots of other bears skating.

6.10) ***After that day,*** Brown Bear and White Bear started doing stuff together all the time.

6.11) ***That evening,*** however, Queenie left the farm.

6.12) ***The next day*** the baby found an egg in the dog's basket.

6.13) ***When he woke up in the morning,*** he went out and chopped some wood for his fire.

6.14) So, ***once the hen is well,*** the family take it all the way to a farm.

6.15) ***When Brown Bear goes home,*** he decides to write a letter to White Bear.

6.16) ***That night, when Ben*** (referring to Brown Bear) ***went home,*** he thought to himself "I love Victoria".

In my analysis, the sentence-initial structures in (6.7) and (6.8) are recorded as an adverb phrase and an adverb respectively, each indicating a temporal discontinuity. A case of temporal discontinuity may also be a sentence-initial prepositional phrase such as (6.10), noun phrase such as (6.11) and (6.12), or subordinate clause such as (6.13) and (6.14). *On his way* in (6.9) is treated as a prepositional phrase informing of a spatial discontinuity. Because the predicate in the subordinate clause in (6.15) indicates a change of place and this change serves as the reference point of time, this subordinate clause is regarded as a case indicating a spatial discontinuity. (6.16) provides an example that contains two structures expressing two different types of discontinuities: temporal discontinuity by a noun phrase and spatial discontinuity by a subordinate clause.

As we can see, the structures that are used orally to express temporal or spatial discontinuities are very similar to those used in written narratives (except that they are generally shorter). This reveals that the English speakers also resort to the marked structures in their oral narratives in order to place information about temporal or spatial discontinuities at the very beginning of an episode. As Table 6.13 shows

below, the use of marked structures for expressing temporal or spatial discontinuities is very consistent. It demonstrates the narrator's effort to clearly encode episode transitions characterized by temporal or spatial discontinuities.

On the other hand, the structures that indicate the changes in participant are in most cases noun phrases serving as the subjects of the sentences. Some of their typical examples are as follows:

6.17) But ***this bird, she*** just doesn't like it out there.

6.18) ***The little kid*** went to the bed that Bruno had been in and found an egg.

Of the total 126 sentences in the high-rate group, 114 (= 90%) are found characterizable in terms of the three types of discontinuities. In Table 6.13, this overall picture is presented of the correspondences between the sentence-initial structures (listed under *Syntactic Categories*) and specific discontinuities (listed under *Functional Categories*):

Table 6.13

Sentence-Initial Structures Expressing Different Types of Discontinuities (based on the English oral data of the high-rate group: 114/126 = 90%)

Syntactic Categories	Functional Categories		
	Temporal Discontinuity	Spatial Discontinuity	Participant Discontinuity
Adverb (Phrase)	9		
Prepositional Phrase	10	3	
Noun Phrase	48		35
Subordinate Clause	7	3	
Total	74	6	35

Table 6.13 records the sentence-initial structures of 114 sentences. Because one sentence contains two structures, there are in fact 115 tokens of structures listed in the table.

Although the majority of sentences in the high-rate group are characterizable by the three types of discontinuities, there are 12 sentences in the high-rate group that need to be accounted for in other terms because their initial structures cannot be characterized by any of the three discontinuities. Three of these sentences start with a perspective maintained on the story itself. By focusing on the story itself, the narrators suggest a break in the development of the story and therefore use them as a special form of expression to indicate an episode transition. For instance:

6.19) And then ***the story*** ***shows him at home*** and he's writing the

white bear a letter.

6.20) Then ***the story kind of takes a bit of a leap***. And you see that the family is painting up nursery and installing a crib.

As far as the rest of the sentences are concerned, they contain no initial structures carrying information about changes in time, space, or participant. More specifically, this means that in these sentences there are no marked structures for carrying the information about changes in time or space and the sentence-initial subject noun phrases do not express changes in participant (i.e., the participant remains the same as that in the previous utterance). Since this is the case, the verb phrases of these sentences are the only constituents that can provide some information as to why they are being used as episode-initial sentences. It is assumed that the use of these sentences as episode-initial sentences is motivated on the part of the participants in the experiments. When these sentences cannot be explained by the adopted framework, it is necessary to look at them from a different perspective. Being unable to characterize these sentences by their initial structures, I analyze their verb phrases. My interpretation of these sentences from such a perspective is as follows:

Three of these sentences contain verb phrases headed by the word *decide*. In these cases an act of decision seems to serve as the starting point for a new sequence of events or actions. For instance:

6.21) The family ***decided*** *the chicken should leave and go to a new home.*

Three other sentences contain verb phrases headed by the phrasal verb *wake up*, which may imply a gap of time between the night before and the morning of a new day. For instance:

6.22) He ***wakes up*** *from his dream* and gets ready for the day.

Two sentences are simple descriptions of what the characters do. For instance:

6.23) *They* ***go cross-country skiing*** *together.*

It seems that the event indicated by the verb phrase suggests a new environment where some totally new events will follow.

The remaining one sentence is an example of a postposed subordinate sentence that is used to indicate the beginning of a new episode:

6.24) Brown Bear was a carefree bachelor, fishing and enjoying his carefree life, ***until one day, when he was on his way to market, he saw a beautiful white bear skating***[2].

The above analysis shows that the majority of the sentences are found to be carriers of information about major changes in time, space, or participant. In their oral stories English speakers clearly and consistently encode episode transitions characterized by these changes. Similar to what has been observed in the written English data, the marked structures such as adverb, adverb phrase, prepositional phrase, noun phrase, and subordinate clause are the primary linguistic forms used for expressing temporal and spatial discontinuities, whereas the changes in participant are typically expressed by the subject noun phrases. The number of exceptions is quite limited.

If the episode-initial structures are indeed responsible for signaling the beginning of a new episode, the same structures should not occur episode-internally in any parallel way throughout an oral story. In an

effort to be sure about the real situation, I examined the oral story of each English speaker again and recorded the occurrences of these structures at episode-internal positions for all episodes. The null hypothesis is that there would be no difference between the occurrences of these structures at episode-initial and episode-internal positions. A chi-square test is used to determine the nature of differences between the occurrences of these structures at the two positions[3]. Table 6.14 presents the result of this examination.

Table 6.14

The Distribution of Syntactic Structures

(based on the high-rate group sentences in the English oral data)

Structure	Episode Position		X^2
	Initial	Internal	
Adverb (Phrase)	9	1	6.4*
Prepositional Phrase	13	2	8.06**
Noun Phrase (time)	48	8	28.57***
Noun Phrase (participant)	35	10	13.89***
Subordinate Clause	10	2	5.33*
Subordinate Clause (postposed)	1	0	
Noun Phrase (perspective)[4]	3	0	
Verb Phrase	8	4	1.33ns

*$p < .05$. **$p < .01$. ***$p < .001$.

In Table 6.14, all the tokens of structures found in the sentences of the English high-rate group are listed under the *Initial* category of *Episode Position*. The structures of the first five categories, namely *Adverb (Phrase), Prepositional Phrase, Noun Phrase (time), Noun Phrase (participant),* and *Subordinate Clause* are those recorded in Table 6.13. They are structures placed at the initial positions of episode-initial sentences. The structures of the next three categories, namely *Subordinate Clause (postposed), Noun Phrase (perspective),* and *Verb Phrase* are structures discussed above as the exceptions to the majority of structures provided in Table 6.13. The one case given as the *Subordinate Clause (postposed),* i.e., (6.24) cited above, is a subordinate clause found after the main clause of the episode-initial sentence. While the three cases of *Noun Phrase (perspective)* are sentence-initial structures, the eight cases of *Verb Phrase* are sentence-internal structures. As we can see, the structures included in Table 6.14 are found in sentence-initial, sentence-internal, and sentence-final positions of the episode-initial sentences. However, for the reason that all these structures occur in episode-initial sentences which take episode-initial position, they are all included in Table 6.14 as episode-initial structures.

The same structures as those in episode-initial positions that are found in episode-internal positions are listed as episode-internal structures. A chi-square test is performed on each pair of the initial vs. internal structures except those of *Subordinate Clause (postposed)* and *Noun Phrase (perspective)* because the sample size of these two structures in two different positions is not large enough to obtain an expected cell frequency of five and therefore conducting a chi-square test on these pairs of structures is not appropriate (Hatch & Lazaraton, 1991, p. 409).

As we can see, the chi-square values for *Adverb (Phrase), Prepositional Phrase, Noun Phrase (time), Noun Phrase (participant),* and *Subordinate Clause* are all significant at the probability level of .05. The null hypothesis is therefore rejected with regard to their occurrences at episode-initial and episode-internal positions. This result supports the claim that the majority of the identified episode-initial structures are indeed the structures that serve the discourse function of initiating a new episode. If we consider the possibility that there are potentially more episode-internal positions than episode-initial positions for each of these structures, this result is even more significant. Despite the significant chi-square values for the *Noun Phrase (time)* and *Noun Phrase (participant)*, a certain number of both structures are nevertheless found at episode-internal positions. The noun phrases (time) found at episode-internal positions are mainly used in the description of two pictures where Brown Bear spends his nighttime at home. A few subjects used structures such as *in the evening* or *at night* in their descriptions of these pictures. The noun phrases (participant) found at episode-internal positions are in most cases used for the purpose of distinguishing its referent from other participants in their interactions. The low chi-square value for *Verb Phrase* indicates that this structure cannot be reliably treated as a structure responsible for signaling a new episode.

6.4. Mid-Rate Group Sentences in the English Oral Data

Although the high-rate group sentences are regarded as the most representative episode-initial sentences, those that are used by 40%-69% of the subjects are also examined. As shown in Tables 6.1, 6.2, and 6.3, these sentences correspond to 8 pictures in all three picture books. They

are pooled together for analysis. Because they are used by about half of the subjects, a look at them may help us to understand the high-rate group sentences better. It is plausible to assume that these sentences are used with similar motivations to those sentences in the high-rate group but somehow differ from them in certain aspects. By examining these sentences in the mid-rate group and making a comparison with those of the high-rate group, the similarity and dissimilarity between them can be discerned. The sentences used by 40% or fewer of the subjects are considered too unrepresentative for further analysis.

When the 74 pooled sentences forming the English mid-rate group are analyzed in the same terms as the majority of sentences in the high-rate group, the result is as follows:

Table 6.15

Sentence-Initial Structures Expressing Different Types of Discontinuities (based on the English oral data of the mid-rate group: 20/74=27%)

Syntactic Categories	Functional Categories		
	Temporal Discontinuity	Spatial Discontinuity	Participant Discontinuity
Adverb (Phrase)	6		
Prepositional Phrase		2	
Participial Phrase	2		
Noun Phrase	2		
Subordinate Clause	6	2	
Total	16	4	

As indicated in Table 6.15, only a limited percentage of sentences in the mid-rate group (20/74=27%) can be characterized in terms of the correspondences between sentence-initial structures and certain types of discontinuities. The majority of sentences in the mid-rate group contain no marked structures that are used to express temporal or spatial discontinuities and there are no cases involving changes in participant. Based on the same strategy adopted in dealing with the cases of exception in the high-rate group, I rely on the verb phrases of these sentences as the source of information in characterizing these sentences. According to the information carried by the verb phrases, these sentences mainly fall into several subgroups:

The first subgroup of 24 sentences contains verb phrases headed by such verbs as *go* and *walk*, indicating changes of location. For example:

6.25) And he ***goes down to the skating rink.***

6.26) So the little doggie ***went away*** and got some soap and water.

6.27) He ***walks up to a big water puddle.***

The second subgroup of 9 sentences contains verb phrases headed by the verb *start*. Their uses suggest the beginning of a new sequence of actions or events. For example:

6.28) Then he ***started*** *twisting the sheet to wring out all the water.*

The third subgroup of 6 sentences contains the verb phrases headed by the verb *decide*. Their uses refer to a mental activity that is separate from preceding actions and explicitly indicates a more conscious involvement in some new activity. For example:

6.29) So James ***decided*** *he had to go and get some soap and water.*

The fourth subgroup of 5 sentences contains verb phrases headed by *notice, find,* and *realize*. Their uses suggest a shift between what the character has been "doing" and what the character has just become "aware of". For example:

6.30) But he ***noticed*** *the ball marked a bed sheet.*

6.31) He ***finds*** *this nice clean water puddle.*

6.32) He ***realizes*** *that he has hit a sheet that is hanging up on the clothesline.*

Of the rest of the sentences in the mid-rate group, six sentences contain the verb phrase headed by the verb *wring*, as in *Then he was wringing it out* and *He then wrings out the sheet*. Without considering the context, it is hard to see how they could correspond to an episode-initial picture. Taking the context into consideration, however, we may see a motivation for identifying the picture as episode-initial. In the picture book of *The Happy Dog*, what the happy dog has been doing so far in the story is cleaning the dirtied sheet by using water and soap. After this is done, the dog is not satisfied. He wants to do a better job by making the sheet dry. The use of the verb *wring* initiates a sequence of actions making up such an effort.

There are also four sentences that are directly related to a picture in *Queenie the Bantam*. It shows that Queenie is sitting in a basket surrounded by the family who have rescued her and brought her home. The verb phrases used in these sentences such as (they) *put her in their dog's basket* or (she) *even got to sleep in a little basket* indicate specific arrangements for the unusual guest. Hence the picture is recognized as starting a new episode.

Now that the mid-rate group sentences have been presented, we can compare them with the high-rate group sentences. Note that the majority of the high-rate group sentences involve major changes in time, space, or participant and the structures responsible for changes in time or space are marked structures preposed to the beginning of sentences. In contrast, in the mid-rate group data, only 27% of the sentences can be characterized by the same structures and the majority of the sentences need to be accounted for by using the information provided by verb phrases. From this perspective, the mid-rate group sentences are quite different from the high-rate group sentences.

However, if we take the information provided by the verb phrases into account, we find that 24 sentences (categorized above as the first subgroup) contain information about changes of location (as expressed by verb phrases headed by *go* and *walk*). If we add these 24 sentences to the 20 sentences recorded in Table 6.15, we get 44 cases that involve changes in time or space, which make up 59% (= 44/74) of the total group. Interpreted this way, the use of the mid-rate group sentences seems more consistent with the use of the high-rate group sentences than it looks.

So, despite the difference in forms of expression, 59% of the mid-rate group sentences may be associated with temporal or spatial discontinuities. In this aspect, the mid-rate group sentences share some similarity with the high-rate group sentences.

The dissimilarity between the mid-rate group sentences and their high-rate group counterparts is also obvious: 41% of the sentences in the mid-rate group cannot be related to changes in time, space, or participant. The analysis of the verb phrases of these sentences indicates that in some

cases the mental activities of "deciding", "realizing", "thinking", etc. or even actions such as "wringing the sheet" (in contrast to washing it) may also represent some sort of break in the structure of narrative. However, such breaks obviously do not define episode transitions as well as major changes in time, space, or participant because their identification is not shared by the majority of the subjects. They can only be treated as indicators of less clear cases of episode transitions.

In the next two sections of this chapter the Chinese oral data will be analyzed. The procedure of analysis will be the same as that followed above.

6.5. High-Rate Group Sentences in the Chinese Oral Data

The episode-initial sentences in the Chinese oral narratives were identified in the same way as those in the English oral narratives. As we can see in Tables 6.4, 6.5, and 6.6, the sentences that are used by 70% or more of the subjects correspond to the same 8 pictures as the English oral data in the high-rate group. These pictures are in *The Wedding of Brown Bear and White Bear* and *Queenie the Bantam* only. After the high-rate group sentences are identified, they are pooled together for analysis. Some typical examples from the high-rate group are as follows:

6.33) zuìhòu kǎitèlín yì jiā juédìng bǎ xiǎo jī sòng dào nóngchǎng qù
eventually Caitlin one family decide BA little chicken take to farm go

"**Eventually** Caitlin's family decided to take the little chicken to a farm." (adverb expressing a temporal discontinuity)

6.34) hòulái kǎitèlín de māma huáiyùn le.
later on Caitlin ASSOC mother (get)pregnant PFV

"**Later on** Caitlin's mother became pregnant." (adverb phrase expressing a temporal discontinuity)

6.35) yǒuyìtiān, zōngxióng tí zhe lánzi dào
one day Brown Bear carry DUR basket to
shìchǎng qù mǎi dōngxi.
market go buy thing

"**One day,** Brown Bear, carrying a basket, went to the market to buy things."(noun phrase expressing a temporal discontinuity)

6.36) dìèrtīan tāmen yìqǐ qù huáxuě.
second day they together go ski

"**The following day** they went skiing together."(noun phrase expressing a temporal discontinuity)

6.37) kěshì dà huáng jī zài nóngchǎng li
but big yellow chicken at farm in
zhù bú guàn.
live not used

"But **the big yellow chicken** was not used to the life on the farm."(noun phrase expressing a participant discontinuity)

6.38) zhōngxióng ài shàng le báixióng.
Brown Bear love ICF PFV White Bear

"**Brown Bear** fell in love with White Bear."(noun phrase expressing a participant discontinuity)

6.39) xǐng lái hòu, zōngxióng dǎ le ge
wake come after Brown Bear give PFV CL
hāqiàn, dào yuànzi lǐ qù pī cái.
yawn to courtyard in go chop wood

"**After (he) woke up,** Brown Bear gave a yawn and went to the courtyard to chop wood."(subordinate clause expressing a temporal discontinuity)

6.40) zài tā shēntǐ huīfù yǐhòu, Kǎitèlín yì jiā
at it body recover after Caitlin one family

bǎ tā sòng huí nóngchǎng qù.
BA it return back farm go

"**When its physical condition recovered,** Caitlin's family returned it to a farm."(subordinate clause expressing a temporal discontinuity)

6.41) huí jiā yǐhòu, xiǎo zhōngxióng náqǐ
return home after little Brown Bear take

bǐ gěi xiǎo báixióng xiě qíng shū,
pen to little White Bear write love letter

biǎodá àimù zhīxīn.
express adore feeling

"**After (he) returned home,** little Brown Bear took a pen and wrote a love letter to little White Bear, expressing his admiration for her."(subordinate clause expressing a spatial discontinuity)

6.42) huí dào jiā li, zōngxióng háishì xiǎng
return to home in Brown Bear still think

zhe báixióng.
DUR White Bear

"**(After he) returned home,** Brown Bear was still thinking about White Bear." (subordinate clause expressing a spatial discontinuity)

6.43) guò le yí duàn shíjiān, xiǎomíng de māma
pass PFV one period time Xiao Ming NOM mother

yào shēng lìngwài yí ge xiǎo bǎobǎo le.
will give birth to another one CL little baby PFV

"**(After) a period of time passed,** Xiao Ming's mother is going to give birth to a little baby."(subordinate clause expressing a temporal discontinuity)

6.44) wǎnshàng huí dào jiā hòu, zōngxióng
(at) night return to home after Brown Bear

zěnmeyě shuìbùzháo, jiù gěi báixióng
no matter what cannot fall asleep so to White Bear

xiě le yì fēng xìn.
write PFV a CL letter

"**At night, after (he) returned home,** Brown Bear just couldn't fall asleep. He wrote a letter to White Bear."(noun phrase expressing a temporal discontinuity; subordinate clause expressing a spatial discontinuity)

From the above examples, we can see that the Chinese high-rate group sentences are quite similar to their counterparts in the Chinese written narratives. In these Chinese sentences, the changes in time or space are expressed by sentence-initial structures such as adverbs, adverb phrases, noun phrases, and subordinate clauses whereas the changes in participant are expressed by the subject noun phrases. Of the total 130 sentences in the high-rate group, 122 (= 94%) can be represented by the above examples. Table 6.16 summarizes the correspondences between the sentence-initial structures (listed under *Syntactic Categories*) and the discontinuities they indicate in these sentences (listed under *Functional Categories*):

Table 6.16

Sentence-Initial Structures Expressing Different Types of Discontinuities (based on the Chinese oral data of the high-rate group: 122/130 = 94%)

Syntactic Categories	Functional Categories		
	Temporal Discontinuity	Spatial Discontinuity	Participant Discontinuity
Adverb (Phrase)	16		
Noun Phrase	45		23
Subordinate Clause	32	12	
Total	93	12	23

Table 6.16 records the sentence-initial structures of 122 sentences. Because 6 sentences have two sentence-initial structures as exemplified in (6.44), there are actually 128 tokens of structures in the table.

There are 8 sentences in the high-rate group that cannot be characterized as the majority cases. Among them, five contain verb phrases headed by *juédìng* (decide), *xiǎng* (think), and *juédé* (feel). The mental activities described by these verbs seem capable of serving as the starting point of a new sequence of events. In the rest of the three sentences that contain the verb phrase *yuēdìng* (make an appointment), this verb phrase is regarded as playing a similar role. The basic rationale for my interpretation of these sentences is the same as that revealed in my discussion of similar cases in the English oral data.

If the episode-initial structures are indeed responsible for initiating new episodes, the same structures should not occur at episode-internal

positions in any parallel way. To find out if this is the case, I looked through the oral story of each Chinese speaker again and recorded the occurrences of these structures at episode-internal positions for all episodes. The null hypothesis for this examination is that there would be no difference between the occurrences of these structures at episode-initial and episode-internal positions. The result of this examination is presented in Table 6.17. Chi-square values are provided as a measure for the compatibility between the occurrences of these structures at episode-initial and episode-internal positions.

Table 6.17

The Distribution of Syntactic Structures

(based on the high-rate group sentences in the Chinese oral data)

Structure	Episode Position		X^2
	Initial	Internal	
Adverb (Phrase)	16	4	7.2**
Noun Phrase (time)	45	7	27.77***
Noun Phrase (participant)	23	7	8.53**
Subordinate Clause	44	11	19.80***
Verb Phrase	8	3	2.27ns

*$p < .05$. **$p < .01$. ***$p < .001$.

Placed under the *Initial* category of *Episode Position* in Table 6.17 are all the structures found in the sentences of the English high-rate group. The structures of *Adverb (Phrase), Prepositional Phrase, Noun Phrase (time), Noun Phrase (participant),* and *Subordinate Clause* are those

recorded in Table 6.16. They are structures placed at the initial positions of the identified episode-initial sentences. The structures of *Verb Phrase* are those discussed above as the exceptions to the majority of cases recorded in Table 6.16 and they are structures occurring at the internal positions of some identified episode-initial sentences. Since all the structures occur in episode-initial sentences that take episode-initial position, they are all included in Table 6.17 as episode-initial structures.

Listed under the *Internal* category of *Episode Position* are the same structures as those in episode-initial positions that are found in episode-internal positions. Based on the chi-square value for each pair of the initial vs. internal structures, we can see that the null hypothesis is rejected for all the categories of structure except for that of *Verb Phrase*. This finding supports the claim that the majority of the identified episode-initial structures are appropriately recognized as the structures serving the discourse function of signaling new episodes. Due to the low chi-square value for *Verb Phrase*, its role as a structure responsible for signaling a new episode proves to be uncertain.

6.6. Mid-Rate Group Sentences in the Chinese Oral Data

The episode-initial sentences used by 40%-69% of the Chinese participants in the experiment are also examined with the intention of finding out the similarity and dissimilarity between these sentences and those in the high-rate group. The mid-rate group in the Chinese oral data consists of 47 pooled sentences corresponding to 5 pictures in *The Wedding of Brown Bear and White Bear* and *The Happy Dog*. Table 6.18 records the correspondences between the sentence-initial structures and the three types of discontinuities in 25 sentences:

Table 6.18

Sentence-Initial Structures Expressing Different Types of Discontinuities (based on the Chinese oral data of the mid-rate group: 25/47 = 53%)

Syntactic Categories	Functional Categories		
	Temporal Discontinuity	Spatial Discontinuity	Participant Discontinuity
Adverb (Phrase)	1		
Prepositional Phrase	1		
Noun Phrase	2		
Subordinate Clause	7	9	
Existential Sentence		5	
Total	11	14	

As shown in Table 6.18, 25 (= 53%) sentences are characterizable by relating the sentence-initial structures to temporal or spatial discontinuities. The rest of the sentences in the group cannot be characterized this way. Because the rest of the sentences contain no sentence-initial structures for carrying the information about changes in time or space and the sentence-initial subject noun phrases do not express changes in participant, the verb phrases of these sentences are analyzed because they are the only structures left that provide any explanation for why they are being used as episode-initial sentences. According to the information carried by the verb phrases, these sentences may be categorized as follows:

The first subgroup of 10 sentences contains verb phrases headed by *lái* (come), *zǒu* (go), or *pǎo* (run), indicating changes of location. For instance:

6.45) xiǎoxióng jíjímángmáng de lái dào
little bear in a great hurry ADV come to
huábīngchǎng.
skating rink

"The little bear ***came to the skating rink*** in a great hurry."

6.46) tāmén qù le fùjìn de yì jiā
they go PFV neighborhood ASSOC one CL
xiǎo cānguǎn.
small restaurant

"They ***went to a small restaurant nearby***."

6.47) zōngxióng pǎo dào hú biān qù liūbīng.
Brown Bear run to lake shore go skate

"Brown Bear ***ran to the lake*** *for skating*."

The second subgroup of 4 sentences contains the verb phrases headed by *fāxiàn* (find). What is found initiates a new sequence of events. For instance:

6.48) kěshì xiǎo gǒu fāxiàn liàng zhe de
but little dog find air DUR ASSOC
bèidān bèi qiú nòng zāng le.
sheet BEI ball make dirty PFV

"But the little dog ***found*** *that the ball had made the sheet being aired dirty*."

6.49) tūrán xiǎogǒu fāxiàn le yí ge shuǐtáng.
suddenly little dog find PFV one CL pond

"Suddenly the little dog ***found*** *a pond*."

The rest of the sentences can only be explained on an individual basis. Similar to some sentences in the English mid-rate group, eight sentences contain the verb phrases headed by ***níng*** (wring). The explanation of why these sentences were chosen as episode-initial sentences by the subjects is the same as that offered for their English counterparts, namely that the use of the verb *wring* initiates a new sequence of actions in contrast to the actions of washing and rinsing.

The above presentation of the mid-rate group sentences enables us to see the similarity and dissimilarity between them and those in the high-rate group. The similarity becomes apparent when we add the 10 cases involving spatial discontinuities in the first subgroup to the 25 cases recorded in Table 6.18. The result is that 35/54 (= 65%) sentences are found to be associated with temporal or spatial discontinuities though the forms of expressing these discontinuities are not the same.

Similar to the dissimilarity between sentences in the English mid- and high-rate groups, the dissimilarity between sentences in the Chinese mid- and high-rate groups lies in the fact that 35% of the sentences in the low-rate group cannot be accounted for in terms of changes in time, space, or participant. The information obtained from the verb phrases of these sentences indicates that certain acts such as "finding something" or "wringing the sheet" which are distinct from the previous acts may also represent some sort of break in the structure of the narrative. However, these breaks are not the same as those characterized in the high-rate group sentences. They are indicators of less clear cases of episode transitions.

6.7. Summary

Both English and Chinese oral data of the high-rate group prove to support the hypothesis of this study and provide a positive answer to the second research question. From a more integrated point of view, the overall result may be summarized mainly in two aspects:

First, the result of identifying episode-initial pictures provides new evidence that episode transitions are characterized by major temporal, spatial, or participant discontinuities. As predicted, the episode-initial pictures that were identified by 70% or more of the subjects in both language groups were all found in *The Wedding of Brown Bear and White Bear* and *Queenie the Bantam* rather than *The Happy Dog*. Furthermore, the fact that the same eight pictures were identified with 70% or more agreement in both language groups indicates that the conception of episode transitions is shared between English and Chinese speakers. This observation also seems reasonable if we compare the overall numbers of pictures identified by the English speakers and Chinese speakers. There were only a relatively few pictures whose identification was not shared by both language groups. From this perspective, the discrepancy between the two language groups is really small in terms of the overall task of picture identification.

Second, parallel with the result of picture identification, the representative episode-initial sentences of both languages are also characterized by major temporal, spatial, or participant discontinuities. These discontinuities are clearly and consistently encoded in most cases by the native speakers of both English and Chinese: preposed structures for expressing temporal and spatial discontinuities and subject noun

phrase for expressing participant discontinuity. This finding again provides strong evidence showing the functional constraint that the information about important changes in time, space, or participant is crucial for the introduction of a new episode in the sense that this information needs to be supplied right at the very beginning of an episode. This functional constraint for signaling the start of an episode does not make the structure of episode-initial sentences involving changes in participant different from the canonical SV(O) sentence pattern because the subject noun phrase in this sentence pattern is at sentence-initial position and therefore is readily used in episode-initial sentences to indicate changes in participant. However, in episode-initial sentences where changes in time and space are involved, this functional constraint requires the structures that carry the information about such changes to be preposed to the beginning of the sentence.

Notes

[1]In the present study, discourse markers such as *but*, *however*, *so*, *anyway*, *then*, etc. are not counted as sentence-initial structures. I basically take Blakemore's (1987; 1992) view that discourse markers do not have representational meaning the way lexical expressions do, but have only a procedural meaning, which consists of instructions about how to manipulate the conceptual representation of the utterance. The episode-initial structures I have been dealing with are lexical expressions. Because of the difference between these lexical expressions and discourse markers as pointed out by Blakemore, the former are typically found at episode boundaries carrying specific information about changes in time, space, or participant and the latter are often used as a device to indicate various relationships between the present and the following sentences. If they play a role in signaling episode transitions (as when they are used together with lexical expressions) this role must be secondary or supplementary because as we have seen most of the episode-initial sentences (in written narratives particularly) do not contain discourse markers at all. Another relevant fact is that discourse markers are used more frequently episode-internally than episode-initially. This demonstrates that their main role is to clarify various relationships between sentences rather than constituent units.

[2]Although postposed subordinate clauses of time usually seem "to be extending the semantic information given by the main clause" (Ramsay 1987, p. 406) or in other words "to work more locally in narrowing main

clause meaning without creating links or shift points in a larger discourse pattern" (Ford, 1993, p. 146), they do have "another function at some critical point in narrative to convey globally crucial information such as marking a turning point or peak. It may create a dramatic effect for an unexpected turn of events" (Hwang, 1994, p. 690). The subordinate clause in (c) in the following sentences (Hwang, 1994, p. 691) is an example performing such a discourse function.

a) The youth resisted awhile, but this was a very persuasive snake with beautiful markings.
b) At last the youth tucked it under his shirt and carried it down to the valley.
c) There he laid it gently on the grass, when suddenly the snake coiled, rattled and leapt, biting him on the leg.
d) "But you promised……," cried the youth.
e) "You knew what I was when you picked me up," said the snake as it slithered away.

The postposed subordinate clause of time in (6.24) is another example that can indicate a major change of events.

[3]Because the structures recorded at both episode-initial and episode-internal positions are the same, the total number of structures in each category is the summation of the observed number of structures at the initial position and the observed number of structures at the internal position. When we divide the total number of observed structures in each category by 2, we obtain the expected number of occurrences for the structure at the initial and internal positions respectively. For the category of Adverb (Phrase), for instance, the

total number of observed structures is 10 and the expected number of occurrences for the structure at both the initial and internal position is therefore 5. The result of this analysis is presented as follows:

	Episode Position	
	Initial	Internal
Observed	9	1
Expected	5	5

The chi-square value for the category of Adverb (Phrase) is the summation of the chi-square values obtained from the two pairs of observed and expected numbers at both the initial and internal positions.

[4]The category of Noun Phrase (perspective) is exemplified by (6.19) and (6.20) on pages 119 and 120.

Chapter 7

Episode Transitions and Their Encodings: What Has Been Learned in This Study

7.0. Introduction

Using experimental methodology, the present study has investigated episode transitions and their linguistic expressions in English and Chinese narrative discourse. In this chapter, a summary will be made of its main findings and its contribution to the understanding of the hierarchical structure of narrative discourse. What may be further investigated will also be mentioned.

7.1. Identifying Episode Transitions

The present study has set two goals for itself: a) achieving a good understanding of the factors that play crucial roles in language users' conception of episode transitions; b) studying the linguistic expressions that are used to inform episode transitions.

In achieving the first goal, a fairly direct approach is adopted. By asking native speakers to segment written narratives into episodes and identify episode-initial pictures in picture books, the present study obtains a first-hand knowledge of their views of episode transitions in both linguistic and non-linguistic narrative materials. Although the participants in the experiments disagree with one another over some points of episode transition, they do converge in choosing other points. This convergence suggests that the identifications of episode transitions have shared motivations to a certain extent. The choices shared by the

majority of the participants in the experiments provide a reliable basis for the characterization of episode transitions and their linguistic expressions.

Based on the analyses of episode transitions favored by the majority of participants in the tasks of narrative segmentation and picture identification, the present study offers strong evidence supporting its hypothesis, i.e., episode transitions are more clear-cut at points of major changes in time, space, or participant and are less so when there is a lack of such changes. Because this hypothesis is formed on the basis of a comprehensive survey on some previous studies, the empirical finding obtained through experimental methodology in the present study puts itself in a good position to evaluate what has been suggested by the previous studies.

Apart from this, the present study has provided some evidence suggesting that in narrative discourse the episode is perceived by language users mainly as a unit of events or actions. The sections that are devoted to a theme (rather than a participant) such as a description of scenery, an expression of inner feelings, an evaluation of a situation, an explanation of a phenomenon, etc. tend to be treated by language users as embedded units within an episode.

The task of identifying episode transitions in picture books also proved to be fruitful. Both English and Chinese speakers participating in this task have not only made highly compatible choices of pictures in general, they have also chosen the same pictures as the most representative. As the contents of these pictures are characterized by major changes in time, space, or participant, this finding demonstrates that these changes play equally crucial roles in language users'

perception of episode transitions presented in a non-linguistic medium. The fact that both language groups share the majority cases indicates that the perception of episode transitions presented in a non-linguistic medium is shared between the speakers of the two languages. The high compatibility between the English and Chinese speakers in identifying episode-initial pictures is rather significant if we take into consideration the fact that English and Chinese and indeed their cultural backgrounds are quite different. In what perspective should we perceive this finding?

Some speculation can give us three reasons that may possibly contribute to the finding:

a) since all native speakers of Chinese participating in the picture identification task have lived in Canada for a certain period of time, their familiarity with the English-speaking culture may contribute to their making similar choices as native speakers of English.

b) the similar choices shared by the two language groups may be brought about by the contents of the picture books.

c) there is a universal cognitive basis for the human conception of episode transitions.

The first reason sounds relevant in the sense that it is true that all native speakers of Chinese participating in the picture identification task, as a result of having lived in Canada for a certain period of time, may know enough about the English-speaking culture so as to make similar choices as native speakers of English. However, a close examination of the picture books tells us that their pictures are not characterized by contents that are specific to the English-speaking culture. What they reflect can be identified with things that commonly happen to people in

both English-speaking and Chinese-speaking cultures. Besides, these picture books are primarily meant for children. The structures of their stories are therefore quite simple and straightforward. Based on the analysis provided here, the suspected "cultural contamination" on the Chinese speakers participating in the picture identification task clearly does not apply. Another fact that does seem to be relevant and therefore is worth pointing out is that a few details in the pictures did pose minor problems for some participants in the experiment. For instance, the distinction between the father and the mother did not appear that clear to some participants. *Queenie* the bantam was mistakenly recognized by a few participants as a rooster instead of a hen. However, the minor problems such as these were encountered not by either English speakers or Chinese speakers but by both groups. This shows from another perspective that the English and Chinese speakers are on a more or less equal basis regarding their basic understanding of the picture books.

With regard to the second reason, it is not convincing either. The main reason is that the three picture books consist of a total number of 146 pictures. Yet only 8 pictures are identified by the majority of both English and Chinese speakers as the most representative cases. The participants in the identification task have a lot of pictures to choose from. Their choices are clearly motivated on some thematic grounds. It is unlikely that the choices made and shared by the majority of both language groups result from the contents of the pictures.

In the view of the present study, the third reason represents a solid claim. More specifically, this view regards narrative discourse as a form of linguistic expressions basically reflecting the activities of human beings (or other animate beings) in their daily lives. These activities are

always related to certain times and certain places. Picture books are a more direct reflection of these activities. The fact that both English and Chinese speakers have been able to identify episode-initial pictures makes us believe that their conception of episode transitions is cognitively based. Since what are reflected in narrative discourse and narrative picture books are basically common to all human communities, we have reason to believe that the conception of episode transitions characterized by major changes in time, space, or participant is not only shared between English and Chinese speakers but also among speakers of other languages.

That is, what we find here appears to be a language-independent, functional universal, based not on the specific syntactic structures of the two languages, but rather on the way our human cognitive architecture guides our mental organization of discourse and narratives. Both Chinese and English speakers organize the stories along the same lines and recognize episode boundaries at the same places, even though the linguistic devices used to encode those transitions are, of course, language specific. Nevertheless, the same kinds of devices, namely marked structures, are used in the two languages for much the same function. If this conclusion is indeed true, we would expect to find similar results across other languages as well, with the use of marked structures and changes in time, space, or participants to be the functional cues for signaling episode boundaries.

Another aspect of the results of both narrative segmentation and picture identification that deserves some comments is that the episode-initial sentences and pictures are consistently identified with various degrees of agreement among subjects. To the present study, it is

reasonable to infer that language users' conception of episode transitions may exist in the form of a prototype of which the key components are major changes in time, space, or participant. The episode transitions identified in the high-rate group data are the prototypical cases. There is significantly more agreement among subjects on the prototypical cases because they meet the requirements of a prototype and are therefore easier to identify. Based on the same reasoning, it is not surprising for us to see that in identifying episode-initial pictures the native speakers of both English and Chinese share the same pictures that are identified with high-rate agreement.

However, if changes in time, space, or participant are not sufficient enough to suggest a prototypical episode transition, participants in the experiments start to show less certainty in dealing with certain sentences or pictures. This results in lower agreement rates among subjects in both language groups. While we can see that the changes in time, space, or participant involved in the mid-rate group cases are still sufficient to be recognized to a certain extent, whatever changes or factors that may be involved in the low-rate group cases are either not recognizable or not shared as sufficient indications of episode transitions.

7.2. Characterizing the Linguistic Encodings of Episode Transitions

Studying the linguistic encodings of episode transitions is the second goal of the present study. Based on the analyses of the high-rate group sentences in both written and oral narratives, the present study has demonstrated that episode-initial sentences are indeed characterized by major changes in time, space, or participant. Because these changes set the boundaries of new episodes, the structures that carry the information

about these changes are in most cases placed at the very beginning of each episode. We find that both English and Chinese resort to preposing the structures that inform the major changes in time or space to the initial position of an episode-initial sentence. Although the preposing of these structures may be characterized differently as part of the overall syntactic framework of English and Chinese, the fact that these structures consistently occur at episode-initial positions and not at episode-internal positions is strong evidence for showing that they do have a discourse function to serve, i.e., to signal the beginning of a new episode. We also observe that since the subject noun phrase in both English and Chinese already takes the sentence-initial position, in serving the same function the sentence-initial noun phrase in the two languages can be readily used at episode-initial positions. Apart from the uses of subject noun phrase, special syntactic structures such as existential sentence may also be used.

The written and oral data in both English and Chinese give us a very good idea of the various ways that changes in time and space may be expressed. The various types of structures that are used to express these changes include adverbs, adverb phrases, prepositional phrases, participial phrases, subordinate clauses, and noun phrases. These structures found for expressing episode transitions in this study are well in line with what has been observed in many previous studies (e.g., Chafe, 1979, 1980; Givón, 1993; Prideaux & Hogan, 1993; Virtanen, 1992).

In expressing changes in time, both English and Chinese use a similar inventory of structures (except that Chinese lacks the structure of participial phrase). The ways these structures function are also similar. As temporal expressions, adverb, adverb phrase, and prepositional phrase

in both languages set the temporal frame for a new episode by using the time of the previous episode as the reference point. In a similar way, when participial phrase and subordinate clause are used, they often indicate a particular time by referring to a specific event or activity in the previous episode. In cases where temporal noun phrases are used, a brand new temporal frame is set for the next episode.

In expressing changes in space, English uses prepositional phrases and subordinate clauses whereas Chinese chiefly uses subordinate clauses. When prepositional phrases are used, they set the spatial setting for the new episode by restating the locations of the previous episodes. But when subordinate clauses are used, they usually introduce a totally new location.

The various types of structure observed in this study make us realize that although episode transitions are characterized by major changes in time, space, or participant, the specific ways these changes are indicated are varied according to specific contexts.

Based on the various types of structures collected in this study we can also observe their relative frequency of occurrence on an individual basis. In Tables 7.1 and 7.2 below, I pool together the episode-initial structures in the high-rate groups of both written and oral data in each language so that their relative frequency of occurrence becomes more observable[1].

Table 7.1

Episode-Initial Structures in the English High-Rate Groups (Total = 128)

Description	Form	Relative Frequency
Preposed Adv (P)	**Adv (P)** NP VP	8%
Preposed PreP	**PreP** NP VP	15%
Preposed ParP	**ParP** NP VP	0.8%
Preposed NP (time)	**NP (time)** NP VP	40%
Subject NP (participant)	**NP (part)** VP	28%
Preposed SC	**SC** MC (= NP VP)	8%

Note.

Adv (P) = Adverb (Phrase); PreP = Prepositional Phrase

ParP = Participial Phrase; NP (part) = Noun Phrase (participant);

SC = Subordinate Clause; MC = Main Clause

Table 7.2

Episode-Initial Structures in the Chinese High-Rate Groups (Total = 146)

Description	Form	Relative Frequency
Preposed Adv (P)	**Adv (P)** NP VP	13%
Preposed NP (time)	**NP (time)** NP VP	34%
Subject NP (participant)	**NP (part)** VP	22%
Preposed SC	**SC** MC (= NP VP)	33%
Existential Sentence	NP (loc) V (poss) NP	1%

Note.

NP (loc) = Noun Phrase (location); V (poss) = Verb (possessive)

As we can see from Tables 7.1 and 7.2, the episode-initial structures that are most frequently used in both English and Chinese are the preposed temporal noun phrases (such as *the next morning, that night, the following day,* etc.). As mentioned earlier, the preposed temporal noun phrases usually set a brand new temporal frame for the next episode of the story. Finding them as the most frequently used structures in the data indicates that they are the strongest cues for signaling episode transitions. In the English data, the second and third most frequently used structures are the subject noun phrase and preposed prepositional phrase. In contrast, in the Chinese data, the second and third most frequently used structures are the preposed subordinate clause and subject noun phrase. If we take into consideration the fact that the preposed adverb or adverb phrases, the majority of preposed prepositional phrases, and the majority of subordinate clauses are also carriers of temporal information, we realize that the preposed structures expressing changes in temporal information are by far the most frequently used. This analysis also suggests that for both English and Chinese data the second most used structure is the subject noun phrase. Since the subject noun phrase is not preposed and therefore not syntactically conspicuous, this makes us more aware that our conception of episode transition is also very closely associated with the change of participant. The structures signaling changes in space are the least frequent and very limited in number in both English and Chinese data and there are no single structures that are only used in expressing changes in space. Due to this result, we may conclude that the structures carrying information about changes in space are not so

effective in cueing episode transitions as those carrying information about changes in time and participant.

7.3. Improving and Continuing the Present Study

Despite what has been done in the present study, its shortcomings should also be pointed out so that new efforts can be made to overcome them.

One such shortcoming has something to do with the identification of episode transitions in the oral narratives. In the present study, the episode-initial pictures identified in Experiment 3 are used as target points corresponding to which episode-initial sentences in the oral narratives are recognized. In a more realistic situation where a story is being told to an audience, episode transitions that are important to the understanding of the story may be signaled by pauses or other prosodic features as well as the lexical expressions carrying information about changes in time, space, or participant. But do pauses or other prosodic features just co-occur with episode transitions? Or do they play a more discernable role in signaling breaks between discourse units that are less clear-cut? The present study has nothing to say about these questions. If we want to find out answers to these questions, we need to design an experiment to find out the subjects' response to points of episode transition in audio stimuli. Then, by referring to both lexical expressions and pauses or other prosodic features, we could offer a more comprehensive characterization of how episode transitions are signaled in oral narratives.

Another shortcoming of the present study results from the limited number of both written and oral narratives used as stimuli or collected in

the experiments. For instance, of the 14 episode-initial sentences identified in the English written narratives in Experiment 1, 10 are characterized by changes in time, 3 by changes in space, and 1 by change in participant. Of the 23 episode-initial sentences identified in the Chinese written narratives, 10 are characterized by changes in time, 3 by changes in space, and 11 by changes in participant[2]. There is a large difference in the number of structures indicating changes in participant between the two language groups[3]. Is this difference a result of coincidence? Or is it rather a somewhat distinguishing feature between English and Chinese written narratives?

Compared with the oral data of the two language groups, which are more compatible in terms of the general ratio of occurrence of the structures expressing the three types of changes, the difference under discussion seems to be a result of coincidence. In other words, this difference may be the result of the difference between the content structure of the segmented written narratives in the two languages used in Experiment 1. With fewer than four written narratives used in each language group, the difference in one particular aspect of the content structure between the two language groups may appear unduly striking. A more definite answer to this issue would require a comparative study based on an analysis of more written narratives in the two languages. Such an answer would deepen our understanding of the structuring of narrative discourse in both languages.

Based on the Chinese data obtained in the present study, another issue that may be worth looking into in the future is the preposed use of prepositional phrase in Chinese. In both the written and oral data of Chinese, preposed prepositional phrases are hardly found in the episode-

initial sentences for indicating changes in time or space. The structures found for indicating changes in time are mostly adverbs, adverb phrases, noun phrases, and subordinate clauses whereas the structures found for indicating changes in space are primarily subordinate clauses. It seems that preposed prepositional phrases in Chinese are not the preferred form for indicating episode transitions characterized by changes in time or space. Could it be that preposed prepositional phrases in Chinese are used for other discourse functions such as contrast or emphasis? To find out the answer to this question, it would be necessary to conduct a study of significantly more Chinese narrative discourse in both written and oral form. If such a study disproves the observation mentioned above, it means that the data obtained in the present study are simply not representative enough of the various preposed structures used for indicating episode transitions in various contexts. If such a study supports the observation mentioned above, we can conduct an investigation of the contexts in which preposed prepositional phrases commonly occur. Based on the characterization of the contexts we can then design an experimental study on their uses in functional terms.

The present study has demonstrated the advantage and benefit of experimental and empirical linguistic study. If we continue the tradition by conducting more research with better experimental design, more linguistic phenomena will be revealed and explained.

Notes

[1]The English episode-initial structures presented in 7.1 are pooled together from Table 3.1 which records the high-rate group structures in the written narratives and Table 6.1 which records the high-rate group structures in the oral narratives. Similarly, the Chinese episode-initial structures presented 7.2 are pooled together from Table 4.1 which records the high-rate group structures in the written narratives and Table 6.4 which records the high-rate group structures in the oral narratives. The main reason for pooling together the structures from the written and oral data is that the structures from the written data are too limited. Presenting them as an independent group we will not be able to observe any considerable difference in frequency of occurrence among the various structures.

[2]Because one of the sentences identified in the Chinese written narratives contains two sentence-initial structures, there are 24 tokens of structures in 23 sentences.

[3]This large difference in the number of structures indicating participant changes between the two language groups may have something to do with the fact that the average number of participants involved in each English written narrative is 2 whereas the average number of participants involved in each Chinese written narrative is 4. However, based on a comparison of the identified cases of participant change in the high-rate groups of the two languages (1 case in the

English narratives and 11 cases in the Chinese narratives), the identified cases of participant change in the two language groups do not seem to be strictly proportionate to the numbers of participants involved in the narratives of the two languages.

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Appendix A

English Narratives Used in the Segmentation Task of Experiment 1

Three English narratives from *Reader's Digest* were used as the narrative texts in the segmentation task of Experiment 1. They were presented to the participants of the experiment in an unparagraphed form. Prior to these texts were an instruction on how to perform the task and an example of narrative text that had been segmented.

Provided below are all the written materials in English used in the segmentation task of Experiment 1: the instruction, the example, and the three narrative texts with their sources. In order for the reader to appreciate them better, the three narrative texts are presented in their original form. An episode boundary resulting from the subjects' segmentation is indicated by a pair of parentheses placed before a sentence. The number enclosed in the parentheses is the number of subjects that marked the sentence as an episode-initial sentence. The number and the parentheses are highlighted in bold face for the purpose of making them easier to notice.

Instructions

Thank you for participating in this linguistic experiment, which is designed to find out how we organize stories. Each story consists of a series of chunks which we call episodes. We define an episode as a portion of a story that relates to an event or a series of connected events and forms a coherent unit in itself.

In this study, I would like to ask you to read the first story completely through. Then go back to the beginning. Your task is to indicate where each new episode begins. Please indicate the beginning of each episode in the story by placing a slash or a vertical stroke before the first word of the episode. Then work your way through the story and indicate each place where one episode ends and the next begins.

Once you have completed the first story, go on to the second and do the same thing. Then, please go to the third and again read it and chunk it into episodes.

Example:

Eagle Dreams

A damp chill lingered in the autumn air the day the veterinarian rattled up the driveway lined with leafless poplars. The farmer's son had found a bald eagle with a broken wing. /The farmer was waiting when the vet's truck pulled in. "Robin's got this foolish notion that we can keep the thing," the farmer muttered as he led the vet past fields that grew mud instead of winter rye. They climbed the hill where the forest met the farm. "The boy's a dreamer. Who has time for injured birds? This year I barely got my hay in."/That morning, before he'd found the eagle, Robin had leapt and twirled beneath the shadow of the fir so tall its bleached crown glinted silver in the sun. He's spread his arms like the wings of eagles soaring overhead. And if someone had asked, he would have told them that he flew, at least inside his head. /Now as Robin waited, he shivered despite the warmth of the afternoon sun. "You'll fly again. I promise," he whispered to the injured bird. "I kept the crows away," Robin proudly told the vet, when she reached the fir. The eagle's wing was torn, a bone

had snapped and its breathing came in ragged gasps. "It may not survive the shock," the vet explained. The farmer shook his head. "Best to end its suffering." But Robin answered with a look as wild as the injured eagle's. The weakened bird barely struggled when they wrapped it in a blanket. The vet reached into her bag. "Right now I'd say don't get your hopes too high."

My Elephant Patient

By David Taylor

Reader's Digest (Canadian Edition; June 1996, pp. 71-74)

(Reprinted with permission from the author and Reader's Digest)

At first the elephant keeper thought the windy razzing was deliberate. Ellie seemed to make a rude noise with her trunk whenever his back was turned. But it was a sound not usually associated with a well-mannered, three-tonne Indian elephant. **(4)** That's when I was called.

(8) In my job as a zoo veterinarian at the Flamingo Park Zoo in Yorkshire, England, elephants had always been among my favourite patients. Still, Ellie, the matriarch of the elephant herd at Flamingo Park, was something special. **(7)** The first day we met, she rooted around in my pockets with her trunk tip until she found a strip of chewing gum. She ate it with the paper on, purring like a giant cat.

(16) Now, hearing of her elephantine raspberries, I went immediately to Ellie's quarters. She looked at me with moist, gray eyes and flapped her ears. "*Praaa*," went her trunk. "*Praaa*, *praaa*, *praaa*." It happened every time she exhaled.

"I wonder if she's got a foreign body up there – a piece of food or a coin?" I suggested to Jack, her keeper. "I've never had a case, but I suppose it *could* happen."

(4) I decided to wait a few days to see how things went. **(13)** Soon, however, Jack reappeared at my office. "Ellie's nose is bleeding – it's trickling down the left side of her trunk!"

I rushed to the elephant house. Drops of scarlet were falling from Ellie's trunk tip. *Ulcers?* I wondered. *Tumour?* Something would have to be done.

"Don't give her any food today," I told Jack. "She can drink until early evening, but no water after that." **(16)** Back at my office, I phoned a surgical-instrument manufacturer. I asked to borrow a flexible endoscope. These tubes, often used for looking into human colons to detect cancers, carry their own light source – ideal for peering inside Ellie's 1.5-metre-long trunk. The instrument company, intrigued by my request, readily agreed.

(19) The next morning I injected Ellie with anesthetic. Five minutes later she sank to her knees, unconscious, her trunk still blaring when she exhaled.

I lubricated the endoscope with anesthetic gel, then gently introduced it into Ellie's lest nostril. "Feed the tube slowly into the trunk," I said to Jack. "If you feel any resistance, stop."

I looked into the eyepiece at the other end of the scope and manipulated the controls. "Forward, forward, gently now," I directed.

Through the lens, a pink tunnel streaked with mucus and blood stretched into darkness. **(4)** Suddenly the way ahead was blocked by a glistening pink boulder. "Stop!" I said.

(1) As I watched, Ellie breathed out, and the boulder rolled forward, then halted. It had all the characteristics of a polyp, a benign tumour. Ellie's breaths, squeezing past it, created the vibration we had heard.

I looked at the measuring marks on the tube. *Forty-five centimetres*. The growth lay at a distance up Ellie's trunk as long as my forearm with fingers outstretched.

(2) I pulled the instrument out and switched the light off. **(4)** "How are you going to get it out?" asked Jack, distraught. Ellie and he were inseparable friends.

"I'll think of something."

(15) I walked back to my office, brewed some tea and sat staring our the window. *How on earth am I going to unpack your trunk, Ellie?* I didn't think I could remove the growth through the nostril. The only possibility seemed to be to cut the trunk open over the polyp. But I didn't know anyone who'd done this.

(4) The trunk of an elephant is a remarkable structure, containing 40,000 muscles and a complex network of blood vessels and nerves. What if my incision damaged Ellie's nerves? An elephant whose trunk is paralyzed can no longer deliver food or water to its mouth.

(17) At last I went back to the elephant house. Jack was sitting on a hay bale, stroking Ellie's trunk. "You're going to be right as a clock, luv," he murmured. "Right as a clock." His face was pale and tear streaked.

(1) "She can feed lightly today and tomorrow," I said. "I'll operate the day after that, Saturday."

(17) By the time Saturday morning arrived, I had done the operation a dozen times in my mind. All the strokes of my scalpel across the trunk would be lengthwise, to minimize the risk of severing any nerves.

I had calculated where the polyp lay by measuring 45 centimetres from the tip of Ellie's trunk. **(5)** I anesthetized her, laying our my instruments once she was down. The keeper sat by her head, stroking her temple and looking tense.

(1) A single slice of my scalpel made an incision ten centimetres long. Blood welled up from the exposed muscles, and I clipped off the bigger vessels. Then I cut through another layer to uncover the pale, gleaming nostril lining.

Slitting it with care, I came upon the polyp. It was elongated and the size of a small plum. Knotting a length of catgut around the neck of the tumour, I snipped it off and threw it to Jack. He caught it and gazed at it with a big smile.

I closed the wound and sutured it with wire. Then I administered an antidote to the anesthetic. **(7)** Now I would discover whether my operation was a success.

(6) Slowly Ellie's trunk began to twitch, writhing on the straw like an inebriated python. Then Ellie flicked an ear and, with one mighty heave, got sleepily to her feet. Putting out her trunk, she touched her keeper's face as if to show him that there was no need to worry. Jack gave a great whoop of joy.

"I don't want her sucking water for the next few days," I said. "Give her trunk time to heal. Water her by putting a hose into her mouth from time to time."

"Leave it to me, Doc," he replied happily. I knew Ellie was in for a lot of postoperative fussing.

(20) The next day I was in my office when suddenly the room darkened. I looked up to see the head of an elephant blocking the window.

I went outside. Ellie turned towards me and purred. From the elephant house, she'd plodded the half kilometre to where she knew she'd find me. **(6)** Several times in the past, Jack had walked Ellie past my office, and because I'd given her biscuits on those walks, she'd remembered the route. **(5)** Now I heard running footsteps, and Jack, face flushed, came puffing up. "Crikey, Doc, she's never done that before! One minute I was cleaning out her straw, and the next minute she'd walked away quiet as a church mouse!"

I laughed. "Perhaps she's come for a post-op checkup." **(4)** I examined her trunk. All was well. **(3)** Then Jack led her off, pulling her gently by the edge of an ear.

(15) On Monday morning Ellie came to see me again. And again on Tuesday, Wednesday, Thursday and Friday. Each time I looked at the trunk and told her how well she was doing.

(6) On the morning of her tenth office visit, I snipped out the steel sutures. The wound had healed and would leave hardly any scar. Ellie must have decided that the removal of the stitches indicated that I was signing her off, for she didn't come the next day, nor ever again.

(19) A fellow vet once told me that his father had been prescribed champagne after an operation for nasal polyps. "It sounds like sensible medicine," he had remarked. I agreed.

(2) So a few days later, I bought a bottle to split in celebration with Ellie's keeper. The patient, however, did not go unrewarded. Ellie got a large, iced currant bun.

Hanging From Cliffs

By Matthew Futterman

Reader's Digest (Canadian Edition; September 1998, pp. 102-108)

(Reprinted with permission from the author and *Reader's Digest*)

As my guide emerged from his beat-up 1985 Honda, I was immediately struck by his bright-orange dread-locks, which dropped down to his shoulders like hundreds of crisscrossing mountain streams. This was Paul Curran, the 30-year-old man I had hired to teach me how to rock climb.

(5) "Ready to roll?" Paul asked. I shrugged and nodded, trying not to look as anxious as I felt. "Then let's hit the cliffs," he said.

Not exactly the words I would have chosen.

(20) Before attempting to scale the heights in the real world, I had gone to Chelsea Piers, a sports complex in Manhattan, to train on their climbing wall. For fifty bucks, I spent two hours learning to tie the classic climbing knots and use the equipment.

(1) "The gym is a great place to work on your strength," Tom Andrews, who teaches at Chelsea Piers and leads climbs in upstate New York, told me. "But it's no substitute for the real thing."

(7) Indeed, "the real thing" doesn't come with the color-coded plastic handles you see on the gym wall. Also, out on the crags, the ropes and anchors are not already in place.

(4) That's why I hired Paul. For $150 he'd take me on a six-hour climb. **(9)** I met him in New Paltz, N.Y., about 90 minutes outside of Manhattan. **(4)** We parked a quarter mile from a rock face and hiked to the base of some cliffs. Moments later we tied ourselves to the rope that would be our lifeline. Paul was ready to head up the rock to set some anchors, and he instructed me how to work the safety line. It seemed a good time to remind him that this was my first time on the crags.

"Don't worry," he said. "I'm not going to let you kill me."

(19) Forty feet up a novice climb called Jackie, I got stuck between a crack and an overhang. I was sure that if I moved either of my feet or my paws, gravity would have its way with me. Trouble was, I was hanging on to the rock face by my now-slipping fingertips, and the horizontal crack I'd wedged my toes into wasn't much support without my hands.

(3) "Want some beta?" Paul asked from below. **(12)** The sport has its own language. Beta is climb-speak for advice. Climbs are known as problems. The boulders at the base of the wall are called talis. And if you fall, you become talis food.

The moves that you use to climb also have their own names. So if you're holding on to a vertical crack as if you're prying open elevator doors, you're performing a gaston. If someone tells you to "gaston on the tweaker and dyno to the cresta vista," you pry at that vertical crack and lunge upward (dyno), and grab hold of the corner of an overhanging rock (cresta vista). **(10)** Fortunately Paul spoke to me mostly in translation.

(6) "If you can get up about another foot and reach around that bulge with your right hand, you'll be able to feel a huge handhold," he said.

I used whatever strength remained in my left arm, pushed up from my toes and reached, expecting to find the rocky version of a suitcase handle.

Instead I found a two-inch ridge. Still, it worked out better than I'd expected. **(5)** A few seconds later I was again moving all fours upward. **(4)** Soon I stood atop a three-inch wide ledge.

"Good move," Paul called up.

(9) As I began to feel more confident, I fell into a rhythm: Look down for a foothold, step, push with the feet, pull with the hands and grab for another handhold. Look again, step, push, pull, grab.

(8) Fifteen feet from the top, I grabbed for what looked like a half-inch-wide curve in the rock and came away with nothing but air. Luckily my weight was still on my toes. Even so, my knees began to shake. I caught my balance and reached again. **(1)** This time I added a little lunge, grabbed the ledge, pulled hard and then… "Aghhhh!"

(8) There is a split second of absolute terror during your first fall when the corner of your eye catches the tops of the trees suddenly rising behind you. **(1)** Before you can really process the sensation, your harness jerks on your crotch, and you're overwhelmed with gratitude for your equipment. **(3)** Swinging back into the face of the cliff, I grabbed for anything that looked like a handhold.

"Hey, look at that," Paul yelled. "We know the rope works."

(20) After I conquered Jackie, Paul took me over to Three Pines, an easier multiple-pitch climb – which means climbing cliffs that are higher than your rope is long. On these, you have to get to one ledge, stop, then reset the rope to the next ledge.

(4) I worked my way up at a decent clip through about 40 feet of rocks stacked like pancakes. **(7)** Just before the top, though, the pancakes

ended, and I had to get myself out of the shelter of the crack I'd been climbing. "Work your way out," Paul told me.

(4) A few deep breaths later I was near the top, with nothing but 180 feet of air below, and a rope and some aluminum gear keeping me from becoming talis food. I tried not to focus on the drop and pulled my body up as if I were getting out of a swimming pool. With one last push, I swung my legs up and rolled gracelessly onto the ledge.

(5) "Nice work," said Paul as I grabbed a seat on the three-foot ledge. "Just kick it here for a while. Enjoy the view."

(12) New York's Hudson River Valley was a sight to behold: miles of pale-green valley bathed in lush yellow light, budding treetops, blackbirds sailing across the sky. The harder you work to get to the top, I'd been told, the better the view. This one was spectacular.

(5) Thanks to Paul, I'd had a good day. **(10)** But 20 minutes after my adventure ended, I was seated in a bar, truly appreciating the firm cushioning of the booth beneath me.

(2) After I'd spent much of the past six hours hanging off a cliff, life felt almost boring on the ground. **(2)** Then I started wondering about the next time.

The Seeing Glass

By Jacquelin Gorman

Reader's Digest (Canadian Edition; September 1997, pp. 176-180)

(Reprinted with permission from *Reader's Digest*)

"Read me a story, Mommy. Please," my daughter asks. "I can't," I say. "My eyes are too tired." "Then I'll read to you," Kelsey says. Only

four years old, she doesn't know how to read yet, but she has memorized most of the words in her book.

(6) Kelsey leans back, her head fitting neatly under my chin, and turns to the first page. **(2)** There is a picture of a mother pushing her child in a swing set. But the swing is missing. The child sits on air.

Every picture is missing something vital in the little girl's life: an ice-cream cone, a ball, a teddy bear.

(4) As Kelsey flips the pages, she gives a great performance. With each picture she asks, "What's missing?" Then she calls out the answer.

(10) My head is throbbing with pain. I take off my glasses and rub my eyes.

"Don't you like my reading, Mommy?" she asks.

"I love your reading," I say. I close my eyes and try to train my mind on the sound of her voice. **(8)** It is such a simple joy to have her healthy again. I marvel at her resiliency – only 24 hours out of surgery for sinus problems and just like new.

(9) When I was visiting her in the pediatric recovery room, I developed such a severe headache I had to leave. Even after it passed, my vision was blurred, as if I were looking through a fogged-up windshield. **(1)** As we wheeled Kelsey out of the hospital, the symptom persisted. **(1)** When she held out her hand to me, I reached to clasp it, but my hand clutched air and I fell forward, steadying myself on the handle of her wheelchair.

I had blamed it on fatigue. **(7)** Now that she is back home, I am able to rest. **(1)** I drift off to sleep to the sound of her voice.

(18) The next morning I am rubbing my eyes when I wake up. They are throbbing terribly now and there is a sticky wetness on my cheeks. I must have been crying in my sleep.

I get up, go into the bathroom and bring my face close to the mirror. I can't see anything wrong with my eyes except that the right one is wet. I hold a washcloth against it and start to call out for my husband, Kenny, then remember he is out.

(10) I decided to drive myself to the emergency clinic since my eye feels so bad. It's only four blocks away. **(5)** I grab a baby pillow – a keepsake that once belonged to my mother – and hold it against my right eye. The cushion makes it feel better, like a big soft bandage.

(8) After getting someone to watch Kelsey, I get the car keys and head out the door. I stare straight ahead, still holding the baby pillow against my injured eye. I drive very slowly, overcompensating for my disability.

(6) At a traffic light, I take a deep breath, then look up and realize that the light is no longer red. I step on the accelerator. There is frantic honking all around me. I hit the brakes just as a car coming from the right almost runs into me.

"Red light, you idiot!" somebody screams from a convertible.

I'm sure it wasn't red, but maybe I'm not thinking straight. One more block.

(17) At the clinic in Manhattan Beach, Calif., the receptionist quickly ushers me to an examination room. **(4)** As soon as the doctor walks in he asks, "How on earth did you drive with one eye covered up like that?"

"Very badly," I answer.

He laughs and begins his examination. There is no sign of serious injury, he says.

"I think I may be having trouble with colors," I say.

"Oh, really? What color is my shirt?"

"A medium brown."

"It's bright red," he tells me, with some evident alarm. "You have lost the color red." **(8)** It has never occurred to me that it is possible to lose just one color. I understand that a person can have trouble distinguishing one color from another, but I never knew it was possible to lose an entire part of the spectrum.

(11) "Let's test your distance vision."

Following his instructions, I put my glasses on, cover my left eye and stare straight ahead with my right. There is nothing in front of me but a fuzzy gray cloud.

I pull my hand away, cover my left eye again and look straight at the doctor. He disappears into a gray fog. I do this over and over again. Every time I cover my eye, the doctor disappears.

"I can't see anything with my right eye," I declare.

He stares at me for a few seconds. "You're absolutely sure?"

"Yes," I say, my voice high with panic.

He looks frantic and that unhinges me further. "I'm sorry," he says, "but this problem is beyond my expertise. Do you have a regular internist?"

I stammer, trying to remember his name. "Bill Lang."

His face brightens. "Bill and I interned together. I'll call him. **(1)** In the meantime I want you to call somebody – your husband – to come get you," he says, handing me the phone. "I'll be back in a minute."

(13) I put the receiver back after he leaves. I will not give this kind of news to Kenny over the phone. I pick up my glasses, my purse and my

mother's baby pillow – and walk out the door. The receptionist calls after me, but I keep moving.

Appendix B

Chinese Narratives Used in the Segmentation Task of Experiment 1

Four Chinese narratives from two literary magazines published in China were used as the narrative texts in the segmentation task of Experiment 1. They were presented to the participants of the experiment in an unparagraphed form. Prior to these texts were an instruction on how to perform the task and an example of narrative text that had been segmented.

Provided below are all the written materials in Chinese used in the segmentation task of Experiment 1: the instruction, the example, and the four narrative texts with their sources. In order for the reader to appreciate them better, the four narrative texts are presented in their original form. An episode boundary resulting from the subjects' segmentation is indicated by a pair of parentheses placed before a sentence. The number enclosed in the parentheses is the number of subjects that marked the sentence as an episode-initial sentence. The number and the parentheses are highlighted in bold face for the purpose of making them easier to notice.

请阅读以下四篇叙事文。

一篇叙事文总是由一系列的情节段组成，这里所说的情节段是指叙事文中记叙的一个或多个互有联系的事件，这一个或多个事件自身组成了一个相对完整的单元。请将每篇叙事文先从头至尾阅读一遍，然后再从头开始，标出该文中所有情节段的开头。具体的标法是在每个情节段的第一个词前划一斜线号或一长竖，如以下例子所示：

饮马

我一走进马棚，连队的那匹青马就知道带它去饮水的人来了。它抬起头颈，平静地望着我，目光里有一种认真的态度，还有期待的意思。我把绳子解开，然后就拿着这根粗绳子往外走，然后就听见背后响起咕咚咕咚的马蹄声。那声音就象是一个拄着笨重铁杖的老人走路时发出的声响，它跟着你，认从你，而它实际上又显然比你沉重有力，这很能令人迷醉。/这样走一阵，我才开始停下来，让青马缓缓走到我的右侧，我把马缰带在左手里，双手扶住马背，往上一跃，就把自己搭在马背上了。然后趴在马上的身体扭转 90 度，右腿翻过马背，就完成上马动作了。我的两只脚空荡荡地耷拉在马腹两侧，象两个多余的东西。/青马朝巩乃斯河边走去，有时有一点碎步小跑，但我控制住它，不让它跑快。连队伸向巩乃斯河的地段是一个漫坡，地势倾斜地滑到河岸，沿途是沙土地和无边的芦苇丛。马很熟悉这段路，它自己找到最合适的饮水位置，走到河边，深深地低垂了头，好象用嘴轻轻地吹拂了一下水面，品尝起来。不久，它又换了一个位置，似乎一条河里流的水有什么不同，它还挑挑拣拣的。饮着饮着，它就朝河里走进去，它走进浅水里，也不怕自己的脚把水弄脏。马很可笑，和人不一样。/我感到它的肚子渐渐圆起来，就扯起马头来，青灰马的嘴象没关紧的淋浴蓬头似的，滴滴拉拉地离开水面，噗噜噜地挥洒一番，就扭转身子上岸了。……

The first Chinese narrative text used in the segmentation task of Experiment 1 is the initial part of a longer story about how an educated young man from a big city settled down in a rural village. This part of the story tells us about his first interactions with the villagers and particularly his romance with the daughter of the Communist Party secretary of the village.

热天（节选）

作者：阙迪伟

《人民文学》１９９８年第９期 (88-89 页)

村里人叫夏天不叫夏天，叫热天；叫太阳也不叫太阳，叫热头。大约有这村子起，就这么叫了，抑或慢慢演变成这叫法，也不定。反正很有些历史。

(16)省城下来的那个知青开始听不懂，后来明白了，觉得有趣，就一笑。

(5)省城下来的那个知青，颇难入乡随俗，太阳就叫太阳，夏天就叫夏天。(2)村里人一怔，虽懂，但还是新奇，觉得很好笑。尤为好笑的是，省城下来的那个知青说“夏天”时，听去就像村里人说“喔天”，发音一模一样。村里人笑弯了腰。

省城下来的那个知青就有一个喔天的绰好。

喔天，吃过饭么？

喔天，你讲城里老憨都把热头叫太阳的？

(17)若干年后，省城下来的那个知青，不仅听懂了乡村的方言俚语，而且颇有研究。他说“喔天”即“喔——天哪”的缩语，语气词，表示惊叹的意思。比如：喔天，热头晒死人哩。村里没人有他那样的解释水平。

解释多了，就有点酸，有点书篓子味道。

可村里人敬重，说，喔天到底是读书人啊。

(17)喔天清瘦，白净，天庭饱满，手指水葱一样。(1)村里人会看相的说，

是工作同志的料啊。(3)队长不敢欺生，说给 7 个底工分吧。支书说 8 个吧，知青哩，要适当照顾。

支书一言九鼎，谁也不敢放屁。况且，知青下放，虽说是落难，也是一时，两年三载总会出头。乡下人天性善良，同情落难人；有天生有种自卑，看城里人高人一头。何况，喔天老实，也随和，没城里人那种傲气，村里人都讲他好。

(19)知青刚下来的时候，村里人有新鲜感，有事没事都喜欢钻知青屋里坐坐，抽几筒烟，把个房间熏得灰寮样。(8)知青屋在村尾，很偏僻。一个大门，进去是一溜走廊，１２间白鸽笼样房间排在走廊上，住１２个知青。(4)１２个知青唯喔天是省城下来的，其他都是离村 3 里的柳镇土著。(2)土著知青出工落工骑自行车，野外夜晚不住村，铳都打不着。(5)知青屋里很多时候就只有喔天孤魂样守着。(9)这样守着，有一天便守出事来。

(8)这事发生在知青下来第二年热天的一个中午。热天的中午村里人都睡觉，要等到热头西斜不焦人了，队长才吹哨出工。热天的中午村子便静得出鬼，连一声狗叫也听不到。

(15)那天中午，知青屋里就喔天一个孤魂。喔天习惯了，门也懒得关，吃过饭就赤条条四仰八叉躺泥地上睡觉。(3)喔天睡得迷糊时，听见走廊有响动，悉索啪啦，像爆豆，又像火烧豆荚，或者像……喔天想不起还像什么，就有点奇怪，起来看个究竟。(7)喔天钻出门时，就惊呆了，他看见支书的女儿娟女，裹一条红裤兜儿，穿一件露肚脐眼的白汗背心儿，两条腿白藕一样，赤脚在匾上踩踏绿豆，将绿豆壳儿弄出悉索啪啦脆响。

(3)娟女朝他笑，说，赵倩叫帮她顾屋哩，闲着，我顺便收拾下她晒的绿豆。

(4)喔天回过神来，慌乱间一笑，忙缩了回来。(3)躺下时，再睡不着觉，边听着绿豆壳儿脆响，边想着娟女模样，心跳跳的，就感到渴。

(4)之后，走廊上便没了声响，知青屋刹时悄静下来。

(4)再之后，喔天终是忍不住渴，懵里懵懂起来，去向娟女讨水喝。

门虚掩着，喔天贼样地侧身进去，可还是碰到了门，门枢发出吱扭扭一声叹息。喔天看见娟女躺在床上，闭着眼，红裤兜儿白汗背心儿像阳光一样

鲜亮眩目。他呆了，干渴折磨得他不知所措，怔怔立着。(4)娟女其实没睡，睁开眼，像刚才那样朝他笑……

(6)可想而知的结局没有演绎为通俗故事，这年冬天，喔天做了支书的女婿。

The second Chinese narrative text used in the segmentation task of Experiment 1 is part of a report on a journalist's personal experience in the east of Tibet. In this part of the report the journalist talks about his visit to Caiwei District and his contact with a mysterious forest keeper.

在藏东深山幽谷之间（节选）

作者：子文

《十月》1999 年第 1 期 (103-106 页)

我是偶然听说嘎玛这个地方的。(2)西藏人民广播电台当时驻昌都记者站的向巴宁扎，家在昌都，他告诉我，也许嘎玛寺庙已不存在了，那是一座历史久远的古寺，隐在幽静的贝希山谷之中。

(16)到昌都后，我请县人事局长向巴做翻译，他欣然答应。(2)下午，我们上车直奔嘎玛而去。

(9)在西藏，大部分公路是土路。我是坐一辆北京 212 吉普从拉萨到昌都的，车非常颠，手得紧紧抓住能抓住的地方，稍不注意，不是碰头，就是身子冲向前撞在车体。

(15)和我一起到藏东的司机叫格桑，是日喀则白朗县人，黑瘦的脸，不善言语，但心地善良，最后我们成了好朋友。

(19)出昌都不远，就离开了川藏公路的主干道。道路明显狭窄起来，而且路况更差。一条狭窄的公路一直旋上山去，下面是奔腾的扎曲河。河中裸

露许多巨石，河水在石间回旋撞击，山谷中激起很大的回声。

(20)傍晚时分，我们到了才维区。用楼房围成的大院坐落在一个土台上。二楼院子里只有一个门，如同一小型城堡。汽车从门可开进去。(1)院子十分宽敞，靠门边下层是马厩，上层是走道，朝阳一面一层是办公室，二层住人。

(1)院内有一架马车，没有马匹，马拴在马厩里，探头探脑，嘴里嚼着草料。

(8)坡地外边向下是一片灌木，再向下便是一条从山巅流下的河，小河淌下，汇入扎曲河中，山坡上有疏密不一的树林，桦树，青冈树，柏树间杂其中。林间不时飞出几只黑鸦。(4)区委大院的屋檐一看似有许多鸽巢，灰色的鸽群在天空盘旋，不时有一两只飞下，钻进屋檐下，墙上有斑驳的鸽子粪迹。

(20)区里只有几个人在。区里的领导到县里开会去了，向巴是县人事局长，对区里来说，是该热情接待的干部，我们相应沾了光。(8)在那间昏暗的小屋，区里的几个人煮了一大锅“八扎磨古”请我们吃。这是藏区待客的上等饮食。汤里有面团、干肉块，汤汁很稠，是用糌粑面调和的，味道略咸。

(19)吃了晚饭，格桑在院子里擦车，我和向巴散步走出。

(2)顺灌木丛中一条小道溯小河而上，来到一面杂木丛生的山坡前，坡上有一缕白烟从小屋上方飘出，小屋用木板搭就，看似极简陋。

(3)随着一条斜斜的小径，我们来到木屋前，轻轻敲响门扉。(3)向巴用藏语吆喝了一声。

门开了，是一位小个子男人，脸上有极多的皱纹。看上去他该老得让人吃惊，但令我惊讶的却是，我和向巴在火塘边坐下，他抽着我递给他的一支“大重九”香烟，告诉我们，他只有 40 岁。

(11)很多年以后，我还清晰地记得那个男人满脸的皱纹，在那上面几乎找不到一指宽平坦的地方，当然那只有许多斑点的大鼻子除外。他晃着几乎是皮包骨的手指，40 岁，他说。(9)当时，我们是以求口茶喝的名义到他木屋里去的。(3)后来在夕阳中我们回区里院子时，向巴告诉我，他一定是个有来头的人，因为他抽烟的姿势太干部化了。抽一口烟，伸出手去，用食指轻轻点一下,掸掉烟灰。(9)如果我写的不是我在藏东的真实经历，而是在心驰神游写某一篇小说，我会从这个满脸皱纹的男人开始，编出很有魅力的故事来。

(5)但事实上，那个男人再次向我要了支烟后，说，他是才维区的护林员，专门看守这几片坡地的树林。(4)近几年昌都盖房子的人多，大多是镇上的有钱人和干部，他看一眼向巴，恭敬地笑一下，又说，乱砍木材的人太多，我得看着点，这些树可都是才维区的啊。

(12)话题接着自然扯到我们去什么地方。我说，去嘎玛寺，到嘎玛区采访。向巴说，这位是从拉萨来的记者。那男人很懂地说，知道，不就是写文章的人吗。木屋的门半开着，看林人说："我去过嘎玛寺，"他面色得意，"当过三年喇嘛。"

(8)才维的看林人给我在西藏的经历提供了一个例证，那就是大多数西藏人生活在现实和神话之中。因为神话和现实在西藏很难有明显的界线。(17)后来，我到嘎玛寺以后，曾问一个中年喇嘛，寺里是否有过一个僧人，后来到才维区当了看林人。那中年人问了看林人的相貌以后，摇摇头，说他在寺里呆了 20 多年，"文革"时也留守嘎玛寺看管寺院，不记得有过这人，或许老一辈师傅知道。(16)本来我想到从嘎玛寺回昌都时，路经才维再去看望一下看林人，套套近乎，了解一下他的身世，或许可写出篇什么出色的文字来。车过才维时，正是中午，车未停，直赶昌都去了。

The third Chinese narrative text used in the segmentation task of Experiment 1 is a story about the narrator's life as a child. In this story the narrator tells us about the community in which he was living and one particular incident he experienced with his playmates.

南箭亭子往事

洋井

作者：鲍尔吉.原野

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洋井在米分培他家的园子边上。(1)晚上做饭的时候，众人拎桶叮当取水。米分培他老婆站在台阶上，看。

(9)计划经济在南箭亭子即盟公署家属院的体现之一，是七八栋房子设一洋井。(4)这井怪，压水时，稍一慢，井水伴着嘶哑的长音缩回，象咽气。再注水引，嘎登嘎登，直至水花溅出井口半尺高。(20)米分培家的人爱敞怀，孩子们衣裳没纽扣，一跑，两襟如旗，从肋下飘起。米分培老婆不系扣用现今的眼光看也没衬衣----两个奶子象装豆浆的塑料袋，在腰上晃。(4)这是在夏天。

(8)米分培是盟公署会计，他家人嘴大。要有人在南箭亭子转，见嘴大的人，不论大人，还是小孩，就是老米家的。他老婆老在生孩子，无暇掩怀。

(20)冬天井台高如小丘，水泼上，流势成冰。取水的人战战兢兢，怕摔。(3)井碗在晚上由米分培老婆收到家里。取水人要恭谨叩门，取井碗，再要点水引井。他老婆傲慢地掀开水缸的秫秸盖，给你两瓢。两瓢水不够，那不管了。

(20)取水对我们小孩是快乐的事情。(1)冬天，在白冰的井台上压水，井水在寒冷的早上飘着白雾泻入桶里，清澈渊深。我和姐姐用木棍担着回家，两人一齐倒进缸里，看水在缸里有长了一截。

(8)夏天取水浇园子，我爸在园子四周种一圈向日葵，它们象卫兵一样仰着金黄的大脸盘子，蜜蜂飞舞。(2)在园子里边，我让我爸种香瓜，但长出来的是肥硕的大叶子。我爸的战友看了，说这是烟。我爸很生气，天黑全拔掉了。

(18)米分培的老婆站在高台阶上看人们取水，这么多水被别人挑走，她可能感到心疼。(3)她家的园子最好，葱、蒜、菠菜，深深浅浅的油绿。(6)其实米分培家吃饭的碗都不够，二胖和三笊篱在一个碗里吃，他妈他爸各有一个碗。二胖弄断一根筷子让他妈打了一顿。过一年了，他妈想起这事又把二胖打了一顿。

(20)有一次，我们在井台上玩儿。蚰蜒说，谁敢舔洋井把儿？那是冬天。大伙儿说，你舔我就舔。蚰蜒说，谁敢舔我管他叫爷爷。(1)六猴子----平常最完蛋----有点抖擞，拿眼睛转大伙儿。我们袖着手，你舔，舔呀！六猴子

咧嘴乐了，用舌头在空气中伸缩两下，练练。他上去，摸摸井把儿。不许焐乎，蚰蜒说。那你得管我叫爷爷！六猴子转过头重申。他不叫就给他扒裤子，大伙儿说。(3)六猴子低头，把舌头伸出来，又说，叫噢。然后舔。

(1)“嗯----”，六猴子古怪呻吟。他舌头粘到井把上了。粉红的舌头在黑铁上拽不下来，六猴子哭，费力扭脸，可怜地看着我们。大伙先是大笑，后来害怕了。六猴子转而嚎啕。有几个小孩吓跑了。(7) 粮本他爸听到喧哗跑出来，一看，痛斥：胡闹！转身回家端了一瓢水，慢慢浇在六猴子舌头粘处。舌头下来了，六猴子捂着嘴，飞也似的哭跑回家。(1)“谁弄的？”粮本他爸训斥，我也吓跑了。(11)六猴子有很长时间不说话。他们说，六猴子说话跟傻子似的，管“饭”叫“拌”。大伙儿也不提蚰蜒管他叫爷爷的事。

The fourth Chinese narrative text used in the segmentation task of Experiment 1 is an account of the narrator's experience as a soldier. In his story the narrator tells us about the visit of a fellow soldier's father to his son and a very special dog that came along with him.

细狗(节选)

作者：周涛

《人民文学》1995 年第 5 期(25-26 页)

吐尔逊别克的父亲来看吐尔逊别克。(2)当他来到连队的时候，这个哈萨克老人显得风尘仆仆，有些疲惫。他下了马，一直牵着那匹和他差不多苍老的马走到连部门口。他走过来的时候显得又矮又笨拙，仿佛不是一个完整的、行走的人，而是从马身上临时卸下来的一部分零件。

(10)老人茫然地注意着周围的一切，脸上现出类似野生动物的表情，他始终不说话，沉默而又顺从。仿佛是一个刚被抓来的俘虏。

(4)直到吐尔逊别克从屋里出来，和他的老父亲见面的时候，老人低声地叽哩咕噜了几句，脸上仍然没有绽开笑容。好象他不是骑着马翻山越岭走了

三四天，而是从隔壁的屋里才走出来。

(6)他把缰绳交给吐尔逊别克，看着儿子熟练地拴了马，就跟进屋去了。

(18)当时连队里站着好几个人，都在观望着这对哈萨克父子的相见。我也站在院子里，我为看到的这一幕过于朴实平淡而心生感动。(3)要知道，这位哈萨克老牧人可是骑马穿过了好几个县来的，大冬天的风雪，几百里路程，就这么单人匹马地来了。(3)他的狐狸皮帽子戴在那张苍劲的面孔之上，没有丝毫浪漫的骑士风采，只显得实用。

(13)我走过去看了他那匹马，是匹很一般的那种牧民骑的马，鞍鞯也普通。马有些瘦，马毛杂乱，被汗湿了的皮毛上结了冰霜。它低垂着头颈，一动不动眼睛微闭，一任人们评价。

这时我才发现连队门外游动着一条狗，它探头探脑，似乎想进来，但也犹豫不决，仿佛没有足够的信心确认它和这个院子的关系。

(6)它太瘦了，瘦得象一张弯弓，一个问号。但是它瘦得独特，甚至瘦得高贵优雅，一身白色，四条长得离奇的腿，犹如一只仙鹤，它的嘴也是尖而长的。(1)它的腰部象一个弓，背向上耸起，肚腹间仿佛被豹子挖空了，其凹处足可一握。

(12)这么一条狗，从哪儿来的呢？

(4)有人拿石头扔它，它灵巧地躲闪开，怯生生的。它对人有一种忍让的品格，决不吠叫。

(2)还有人看见它就笑了，说“没见过这么瘦的狗哎，明天就饿死了，太可怜了。”

(5)但是这狗并不走远，也不进来，它很警惕，也很陌生；有可怜它的人扔馒头给它吃，它看也不看一眼。它的眼神是一种聪明、羞怯、丝毫没有凶相的少女似的眼神，黑而清澈，仿佛它什么都明白，就是不太好意思。

(19)我忽然对它产生兴趣，感到它有些不同寻常，我想起有些外国小说里画的猎兔狗，也是这种类似的样子。那是一些欧洲贵族围猎时用的名犬，这条狗会是吗？

(4)我试着追逐了它一阵，果然，它跑起来轻盈得就象是没有分量，轻松极了，随意一跳就窜出去一丈之遥。它跑起来就象一只豹子，不，比豹子更

富有弹射力，它简直就是在把自己射出去！

姿势太漂亮了，优雅极了。

它是一条狗，然而它使自己具有了鸟类一般的轻灵，这真是奇迹。它的跑跳几乎就是飞行，因它身躯的奇异细长而伸缩自如、灵活有力。

(9)我知道了，它是细狗。(7)细狗是草原上最受哈萨克猎人珍爱的一种名犬，专门用来捕狐。一般的牧羊犬粗壮凶猛，可以与狼搏斗。但是它们太沉重了，追不上狐狸，而狐皮是相当贵重的，价值远胜狼皮；只有细狗可以追捕狐狸，还能钻进狐狸的洞穴，细狗生来仿佛就是为了对付狐狸的。

(19)吐尔逊别克朝我走过来了。他微笑着朝我打手势，“不要打它，这是我父亲的狗。”

我问他：“是细狗吗？”

“当然了，”他很骄傲地说，“这是我父亲最宝贵的东西，比马还重要；这样的狗，不多，人家拿十只羊换它，我的父亲都不愿意呢！”

(17)吐尔逊别克的父亲第三天就走了，走的时候，我才看到那只白色细狗兴奋、激动的样子。它象一只白色的鸟儿盘旋、飞翔在主人前后，稍不留神，就远远地把自己射出好几百米开外……它的身姿矫捷得令人赞叹！

(14)在连队门外我一直目送着他们，我想，它身上没有保留供人食用和役用所需的多余的肉，因而在一般人眼里，它毫无价值。但是吐尔逊别克的父亲了解它，知道它的本事，把它看得非常珍贵。(5)吐尔逊别克的父亲不是名犬鉴赏家，不是生物学家，他只是一个骑着老马的草原猎人，看起来表情简单、缺乏激情。一双罗圈腿，笨拙迟缓。

Appendix C

The Stories of the Three Picture Books Used as Stimuli In Experiments 2 and 3

The Wedding of Brown Bear and White Bear

Brown Bear was a happy bachelor living in the mountains. It was winter and there was snow everywhere. Brown Bear liked fishing. He would roast his catch on an open fire and eat them for dinner. In the evening, when he was back in his cabin, he would listen to the radio and read newspapers. Sometimes he felt lonely.

One day Brown Bear went out to buy some groceries. When he passed by a frozen pond, he saw many bears skating on it. A female white bear among them caught his attention. Dressed in pink, she looked very beautiful. She was an excellent skater. She twirled and swirled and skated all over very gracefully. Brown Bear immediately fell in love with her. But then he realized that he had to go to the market before the stores were closed. So he went to the market and bought some vegetables and honey. In the evening, he tried to read his newspapers in front of the fireplace as usual. But he kept thinking about the beautiful white bear he saw in the daytime. He even dreamt about himself skating together with the white bear when he was asleep that night.

The next day, after he got up and did some household work, he thoroughly cleaned himself and went to the pond he passed by the day before. He wanted to learn skating and enjoy the company of other bears,

particularly that of the white bear. However, as soon as he stepped on the ice, he fell on his face. His hat flew off and went sliding across the pond. He tried to pick it up, but he fell over again. At this moment, White Bear came over. She picked up the hat and put it back on his head. She also helped him get up. Brown Bear thanked her for her help and invited her for dinner. She accepted his invitation. They went to a restaurant and had blueberry pie. They both enjoyed the dinner very much.

After dinner, they went cross-country skiing together. Brown Bear was much better at skiing than skating. They had a lot of fun skiing through the woods. Brown Bear took White Bear up to his favorite spot, the edge of a cliff. From there they had a wonderful view of everything in the valley. When night fell, they sat together and watched the twinkling stars. They enjoyed each other's company very much.

When Brown Bear went home, he wrote White Bear a letter expressing how much he loved her and making a marriage proposal to her. He asked his friend owl to take the letter to White Bear. White Bear was very happy in receiving the letter. After she read the letter, she asked the owl to take a pink scarf back in return to show her love for him as well. Soon after that they got married. At their wedding ceremony Brown Bear put a wreath of flowers on the head of White Bear. They also kissed each other by rubbing noses. After that they danced in front of all the bears in the mountains who came to celebrate their marriage.

Queenie the Bantam

One day a family was taking a walk in the countryside. There were three people in this family: the father, the mother, and Caitlin their

daughter. They had a dog with the name of Bruno and he was with them. As they were passing by a lake, they noticed a bantam furiously paddling to keep her head above water. Caitlin's father jumped into the lake and rescued her.

After taking the bantam to safety Caitlin's father wrapped her up in a blanket and the family took her home. The family named her Queenie and let her sleep in Bruno's basket. Before long, Queenie fully recovered from the incident in the lake. She seemed to become a member of the family and enjoyed playing with Caitlin and Bruno. In order to keep the floor clean while Queenie was around, the family covered the floor of their living room with newspapers. However, Queenie was a chicken. She could not behave like a human being. For instance, when Caitlin's mother was taking a shower, Queenie went into the bathroom and drank water from the bathtub.

One day, Caitlin's parents decided to return Queenie to where she belonged, a farm. They put her in a box and carried her all the way to a farm in the suburb. The farmer and his wife were very pleased to get another chicken on their farm. They already had many animals. Caitlin and her parents waved good-bye to Queenie. When Queenie was gone, Bruno got back his basket.

However, Queenie did not like to be on the farm and wanted to live with Caitlin's family. So she ran away at night. She walked all the way back to the city and found Caitlin's house. She went into the house through the small door designed for Bruno. She took over Bruno's basket once again.

The next morning Caitlin found an egg in Bruno's basket and gave it to her mother. Her mother boiled the egg and Caitlin ate it for breakfast.

As Queenie laid more eggs for Caitlin her mother even used the eggs in making a birthday cake for her.

Caitlin's mother was expecting a baby. As the due date was approaching the family bought a new crib. Caitlin's father painted the nursery and prepared all the clothes for the new baby. When Caitlin's little brother was born Caitlin and her father paid a visit to the hospital. The family had a happy reunion there.

The Happy Dog

The happy dog was playing baseball. He threw the ball into the air and tried to hit it with the bat. But he missed it and fell over. Sitting on the ground he thought for a moment about how to improve his playing. He threw the ball into the air once again and swung the bat with all his strength. This time he hit the ball and it flew into the distance. Since he could not see where the ball landed he went over looking for it. He found the ball under a clothesline on which some fresh laundry was hanging. He noticed that the ball had hit a sheet and left a dirty mark on the sheet. He spit on his paw and tried to brush the dirt off the sheet. But the more he brushed the sheet the dirtier it became.

Then the happy dog got an idea. He ran back home and came back with some water in a watering can and a cake of soap. He poured water on where the dirt was and scrubbed it with the soap. He scrubbed and scrubbed until the dirty mark disappeared. Meanwhile he made a huge lather. He poured water onto the sheet again to rinse off the lather. Now the sheet was completely clean.

Although the sheet was clean now, it was dripping wet. The happy dog wanted to make the sheet dry. He started to twist the sheet to wring water out of it. He twisted it and twisted it until it was really wound up. Suddenly the wound-up sheet started to untwist. Still hanging on the sheet the happy dog spun around with it. In the end the whole clothesline snapped and all the laundry on it fell on the ground and became a dirty mess.

One rainy day the happy dog was on his way to school. He was wearing a pair of blue rubber boots and carrying a yellow umbrella and his school bag. As he walked in the rain, he went splashing in the puddles. Splash, splash he went. Then he came across a mud puddle. He stepped right into it. As he walked through it he found he was stuck. In trying to pull himself out of the mud he lost his boots in the mud. His feet were covered all over with mud. Pulling out his boots he carried them in his hands and walked on. Before long he came to a large water puddle. He put down his umbrella and his school bag and started washing his boots and feet in the puddle. Then he took his umbrella and let it float on the water like a boat. Suddenly the wind blew the umbrella away from him. Running after the umbrella he tripped and fell in the water. He had to swim to get hold of his umbrella. He was completely soaked when he got out of water. Taking his umbrella, his boots, and his school bag he walked along in the rain. When he saw a tree in front, he went over and hung up his school bag on the tree. He then went back into the rain and took a shower in it. After the shower he shook all the water off his body and ran back to the tree. He pulled a towel out of his school bag and dried

himself up. Now he was dry and clean again. After he put on his boots and school bag and picked up his umbrella he walked happily to school.